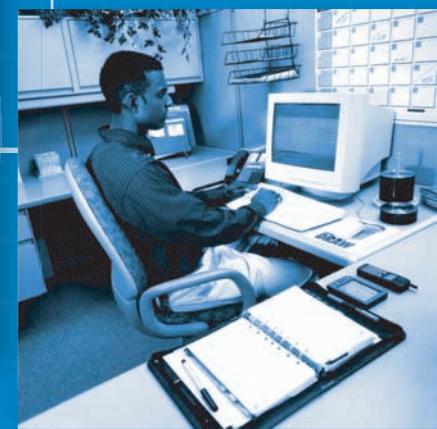


Workforce Development Blueprint

DEFINING VIRGINIA WORKFORCE NEEDS

2012

Population



Industry



Education



Employers



Job Growth

Virginia Workforce Council



Workforce Development Blueprint
DEFINING VIRGINIA WORKFORCE NEEDS
2012

March 2006

Employers

Education

Job Growth

Contributors:

Virginia Workforce Council members

Daniel G. LeBlanc, State Blueprint Task Force Lead
Marjorie M. Connelly, Chair, Virginia Workforce Council
Dolores Esser, Governor's Special Advisor for Workforce Development and Commissioner, Virginia Employment Commission
The Honorable Michael J. Schewel, Secretary of Commerce and Trade
James H. Underwood, IBEW-Local Union No. 666
Andrea Wooten, Great Falls

Population



State Blueprint Resource Staff

Don Lillywhite, Resource Staff Lead, Virginia Employment Commission
Ann Battle, Virginia Economic Development Partnership
Willie Blanton, Virginia Employment Commission
Kathy Dolan-Marshall, Virginia Employment Commission
Ann Lang, Virginia Employment Commission
Carolyn Leslie, Virginia Employment Commission
Leonard Sledge, Virginia Community College System
Mark Spatig, Virginia Employment Commission

Industry



Other

A. Fletcher Mangum, Mangum Economic Consulting, LLC
Bev Donati, Virginia Department of Labor and Industry
From the Virginia Employment Commission: Laura Adkins, Aaron Barber, Joyce Fogg, Tim Kestner, Joan McDorman, Gail Robinson, Larry ^{Employers} Robinson, and Linda Simmons.

Education



The Virginia Employment Commission is an equal opportunity employer/program. Auxiliary aids and services are available upon request to individuals with disabilities.



Table of Contents

Executive Summary and Conclusions	iv
Introduction	vi
The Virginia Economy	1
State Workforce Needs	8
State Workforce Supply	15
Regional Workforce Needs.....	21
Economic Study Regions for Cluster Analysis (map).....	23
Index for Economic Study Regions	24
Cluster Analysis for Economic Study Regions	25
Appendix A - Top 50 Employer Listing for Virginia	92
Appendix B - Demand and Supply Analysis	95

Executive Summary and Conclusions

Executive Summary—The Workforce Development Blueprint—Defining Virginia Workforce Needs 2012 is an essential first step in the process of determining Virginia’s workforce needs and subsequent workforce development strategies. As envisioned by the Virginia Workforce Council, the *Workforce Development Blueprint* will analyze job creation projections, skill needs, and potential gaps in light of projected economic development trends and identify industry and occupational targets for workforce development, all towards the goal of defining Virginia workforce needs.

Virginia has a diverse and growing economy and must have a workforce to support and sustain this growth. Analyzing economic and demographic trends provides important information about Virginia’s future workforce. Like the nation, Virginia’s population growth is expected to slow in the future but will continue to exceed the national growth rate. Slower population growth means fewer new and replacement workers. Also, Virginia’s population and workforce are aging. An older population signals loss of experience and skills through retirement. As a result of the improvement in educational attainment during the 1990s, Virginia’s population and workforce are better educated and have the knowledge, skills, and abilities to attract well-paying jobs. Virginia’s continued low unemployment rate in some areas of the state results in tight labor markets and wage pressure in high-demand occupations.

An analysis of occupational projections and resulting occupational gaps shows state workforce needs. Virginia’s fastest-growing occupations are Management, Professional and Related Occupations, and Service Occupations. The three occupation groups with the largest number of openings are Office and Administrative Support, Sales, and Food Preparation. A comparison of the likely workforce-driven demand for graduates from specific postsecondary education and training programs with the likely supply of graduates shows that the largest occupational gaps tend to be in accounting, computer, education, and healthcare related occupations.

In Virginia, potential labor supply opportunities for workforce development include unemployed workers, apprenticeship, retirees, exiting military, international and internal migration, and prison re-entry. Unemployed individuals are available for immediate hire and are an important source of labor supply. The registered apprenticeship system trains employees in over 300 occupations and helps businesses develop and maintain a skilled, dedicated workforce.

Over two-thirds of Virginia's registered apprentices are in Construction and Public Administration, and electrician was the top occupation in number of active apprenticeships. Retirees are re-entering the workforce, and those approaching retirement are expected to work beyond their normal retirement years. These workers are experienced, knowledgeable, and a valuable workforce asset. With the significant military presence in Virginia, exiting military are well educated and provide a skilled potential labor source. People moving into Virginia from other countries and states are an important component of Virginia's labor market—with migration, employment growth is not constrained by current population and labor supply. Inmates released from state institutions and local jails present another workforce opportunity. Approximately 10,000 inmates are released from state institutions each year, and of those, 46 percent participated in either academic or vocational training.

Conclusions—In conclusion, this report provides a cornerstone in defining Virginia's workforce needs. Educators, workforce professionals, job seekers, workers, and employers can use this information to prepare for the future. It is vital that these partners work together to build a future workforce that will ensure economic growth and prosperity.

By highlighting demand-driven occupations and potential occupational gaps, workforce needs can be evaluated; and workforce development strategies to meet these needs can be developed and implemented. The workforce can be expanded by engaging and utilizing diverse labor supply sources such as unemployed workers, apprenticeship, retirees, exiting military, international and internal migration, and prison re-entry.

Agency coordination at the regional level for development of workforce strategies based on demand-driven occupations and regional economic opportunities stemming from the existing and emerging industry and workforce base is recommended. A similar workforce needs analysis at the regional level may complement the regional cluster analysis in the report.

Introduction

The Virginia Workforce Council (VWC) charged Task Force II under the leadership of Dan LeBlanc with the creation of a *Workforce Development Blueprint* for the State, an objective aligned with the Integration and Alignment strategic goal. As envisioned by the VWC, the *Workforce Development Blueprint* will gather and analyze job creation projections, skill needs, and potential gaps in light of projected economic development trends and identify industry and occupational targets for workforce development, all towards the goal of defining Virginia workforce needs.

Developing a “blueprint” requires an understanding of the demand-side and the supply-side forces that drive the labor market. On the demand side, industries require a stream of employees in specific occupations to meet current and future labor needs. A view of broad economic trends in the economy helps to frame the demand picture, while projections of occupational employment bring industry demand down to the level of specific occupations. In addition, to the extent that regions develop marketing plans to target specific industries or clusters of industries, the workforce implications of these plans must also be considered. On the supply side, current estimates of occupational employment and availability of unemployed workers comprise the existing labor pool. Population growth and, more specifically, graduates of community colleges, four-year colleges and universities, and State-approved apprenticeship programs determine the supply of available labor for the future. Other labor supply considerations include retirees that are re-entering or remaining in the labor force, exiting military, international and internal migration, and inmates released from state institutions and local jails.

The *Workforce Development Blueprint—Defining Virginia Workforce Needs 2012* begins with an analysis of the demographic and economic characteristics of the Virginia economy. An evaluation of state workforce needs follows. This evaluation is based on an analysis of the occupational projections and resulting potential occupational gaps. Data on the characteristics of the unemployed, apprenticeship programs and completion rates, and other factors such as retirees continuing to work, exiting military, international and internal migration, and inmates released from state institutions and local jails will round out the state workforce supply picture. Regional workforce needs also will be analyzed by looking at the top occupations for existing and emerging industry clusters and the “best fit” industries for displaced workers.

This report identifies the state’s and each region’s economic opportunities, based on the existing industry and workforce base. By highlighting potential occupational gaps, Virginia’s workforce needs can be evaluated and workforce development strategies can be developed and implemented.

The Virginia Economy

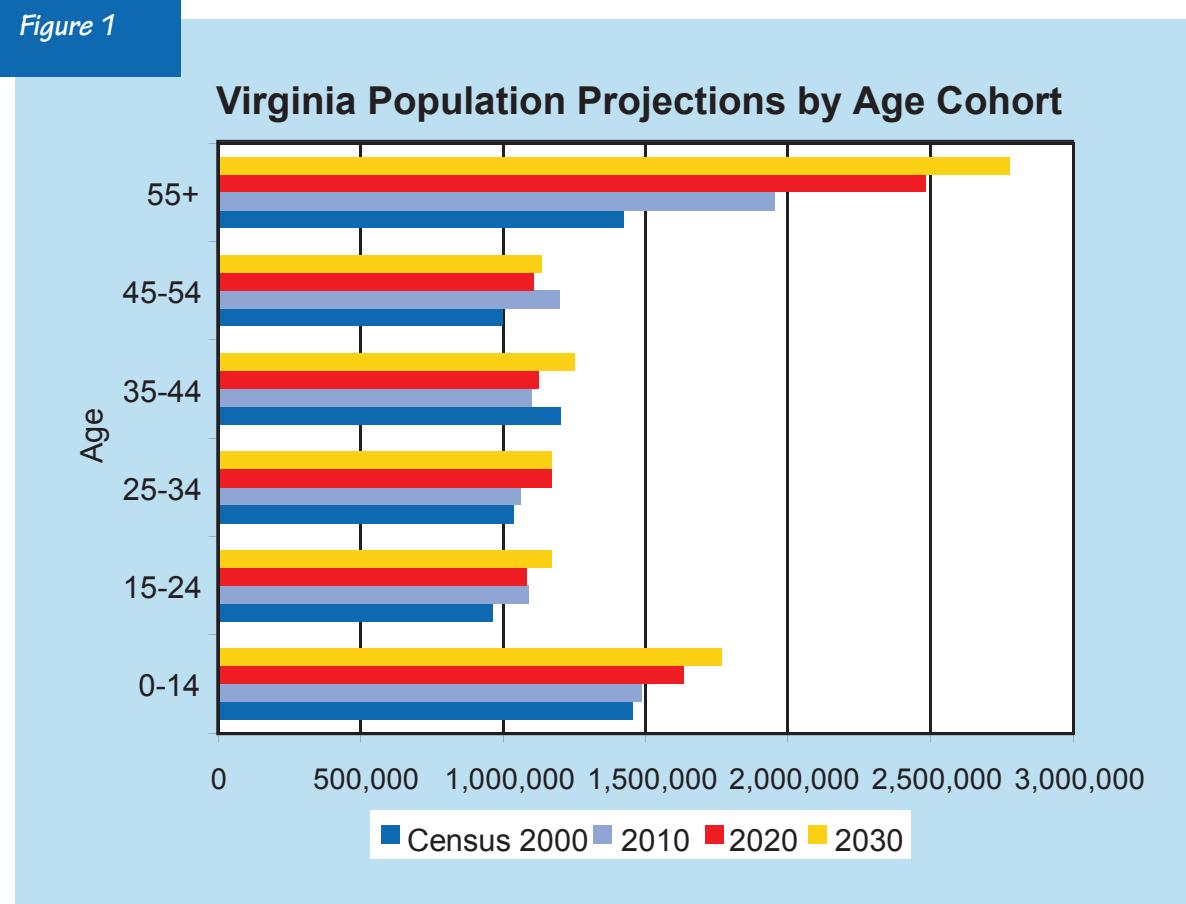


Population—Population demographics provide insight into the characteristics of the future labor force and are an important factor to consider in assessing Virginia’s future labor supply.

Virginia’s population growth is expected to continue over the next decade, but like the U.S., at a slower pace. Between 1990 and 2000, Virginia’s population grew 14.4 percent, exceeding the national rate of 13.1 percent. Over the next decade, Virginia’s population growth is expected to slow to 11.5 percent and continue to exceed the U.S. growth rate.

Between 2000 and 2010, the two older age cohorts are expected to be the fastest growing. (See Figure 1.)

Figure 1



Source: Virginia Employment Commission

The 55+ age cohort is projected to increase 37.2 percent, for a gain of almost 530,000. The share of Virginia's population that is 55 and older is projected to increase from 20 percent in 2000 to 25 percent in 2010 and ultimately 30 percent in 2030. (See Figure 2 on the following page.)

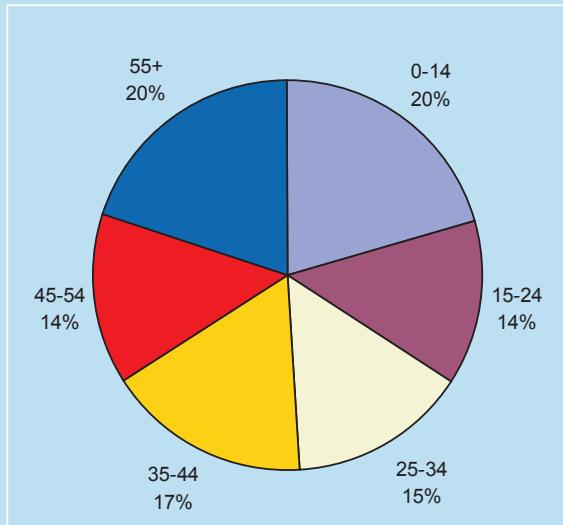
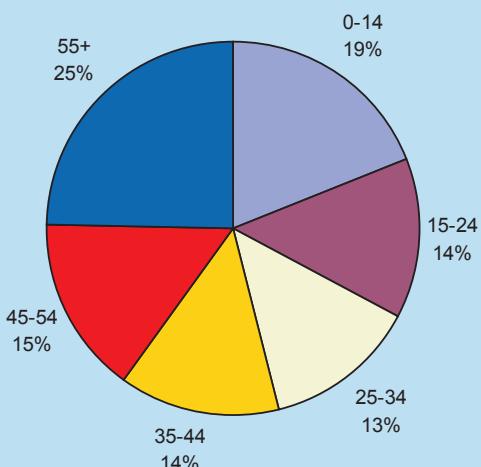
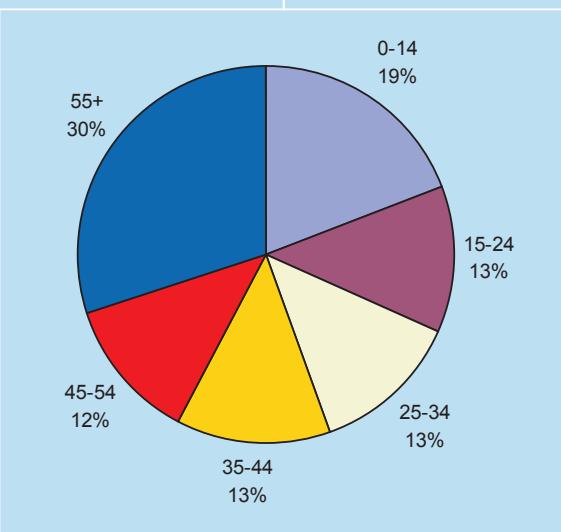
The 45-54 age cohort is projected to be the next fastest growing, increasing 19.8 percent between 2000 and 2010, for a gain of about 197,000. This cohort's share of total population is projected to increase from 14 percent in 2000 to 15 percent in 2010, but decline to 12 percent by 2030.

The 15-24 age cohort is also projected to experience double-digit growth over the 2000-2010 period, increasing 13.3 percent and adding 128,000 individuals. Despite this growth, this cohort's share of total population is expected to remain at about 14 percent in 2010 and drop to 13 percent in 2030. Between 2000-2010, the population in the 35-44 age cohort—a prime working age population—is projected to decline by 8.3 percent or 99,000. The share of Virginia's population in the 35-44 age cohort is expected to decline from 17 percent in 2000 to 14 percent in 2010 and 13 percent in 2030.

Education—Educational attainment in Virginia improved during the 1990s. A more highly educated workforce has the knowledge, skills, and abilities to attract well-paying jobs in high tech industries. In 2000, nearly 82 percent of the State's population age 25 and over was at least a high school graduate, surpassing the 75 percent from a decade ago. Despite this improvement, several areas of Virginia had significantly lower high school educational attainment than the state as a whole. Southwestern Virginia (LWIA I), South Central (LWIA VIII), and West Piedmont (LWIA XVII) had the lowest high school completion rates with 62.1 percent, 65.6 percent and 66.5 percent, respectively.

Virginia ranked 7th among states in the percentage of population age 25 and over with a bachelor's degree or higher. In 2000, almost 30 percent of this population group earned a bachelor's degree or higher, compared to just about 25 percent in 1990.



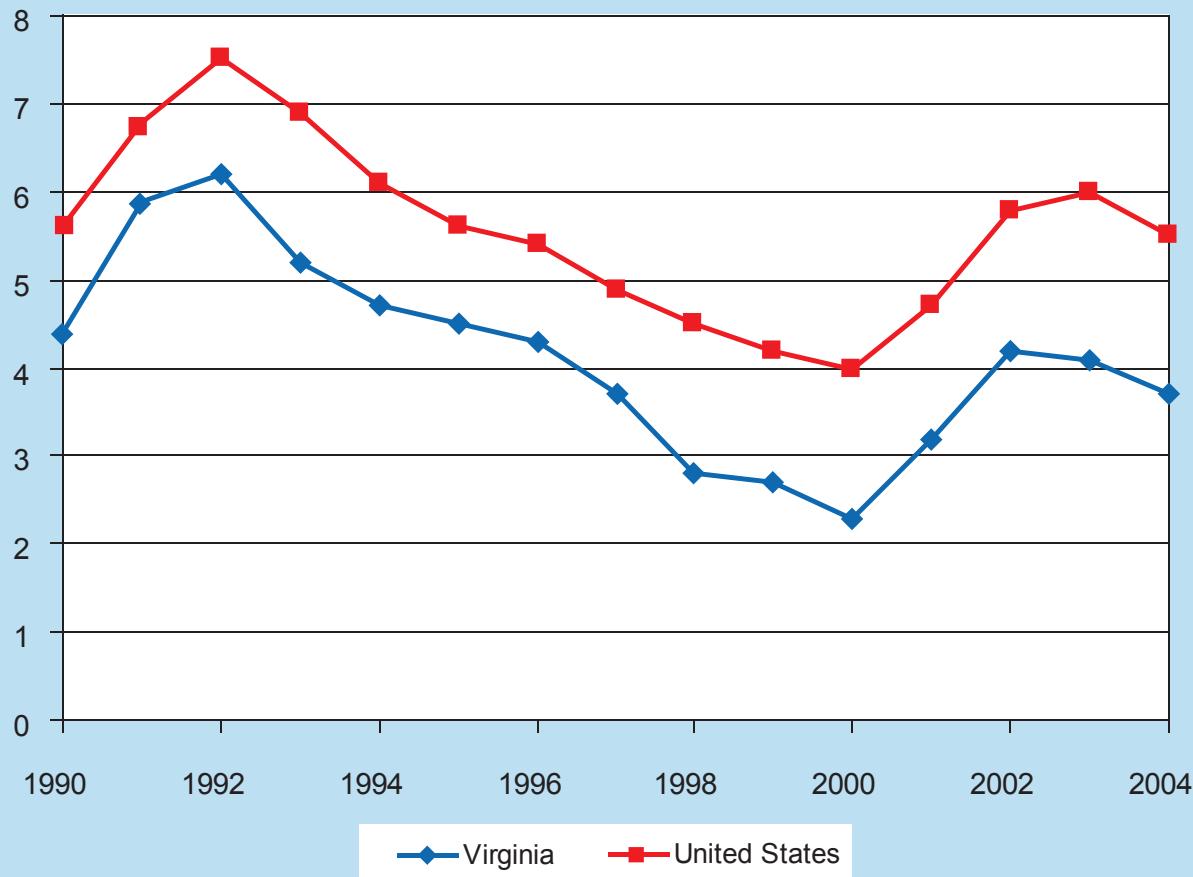
Figure 2**Virginia Population Projections****2000****2010****2030**

Source: 2000 Census and Virginia Employment Commission

Unemployment Rate Trends—The unemployment rate is an indicator of labor market activity. Virginia's unemployment rate has been consistently below the national rate. (See Figure 3.) During the late 90's through 2000, Virginia experienced a period of extremely low unemployment, as a combination of explosive growth and low birth rates from the mid-1960s to the mid-1980s caused tight labor markets.

Figure 3

Virginia Unemployment Rate Trends



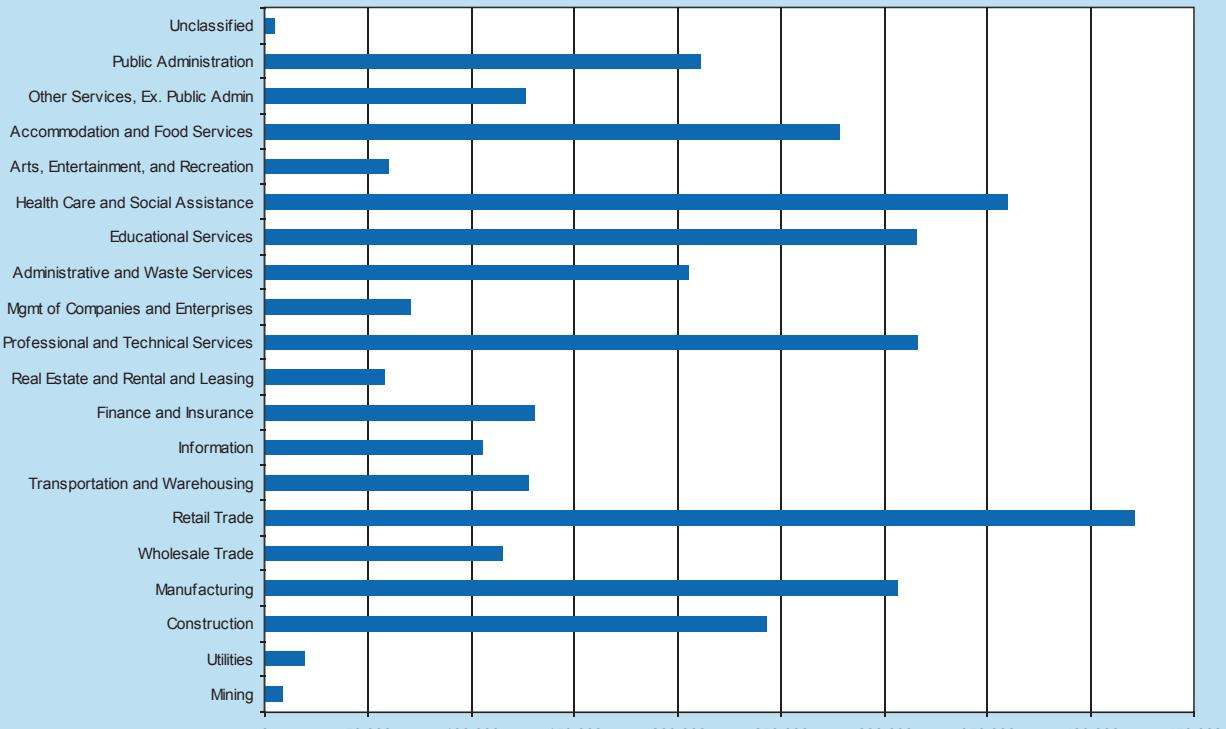
Source: Local Area Unemployment Statistics, Virginia Employment Commission

The average unemployment rate of 2.3 percent in 2000 is the lowest average ever recorded since 1950. Despite the increase in Virginia's unemployment rate following the last recession, the unemployment rate remained below the national rate. In 2004, Virginia's unemployment rate dropped to 3.7 percent and fell back within the full-employment range, renewing concerns about the likelihood of tight labor markets in some areas.

Employment by Industry—Occupational demand is closely linked to Virginia’s industry composition and characteristics. Virginia’s employment is concentrated in Retail Trade (12.0 percent), Health Care and Social Assistance (10.3 percent), Professional and Technical Services (9.0 percent), Educational Services (9.0 percent), Manufacturing (8.8 percent), and Accommodation and Food Services (8.0 percent). (See Figure 4.)

Figure 4

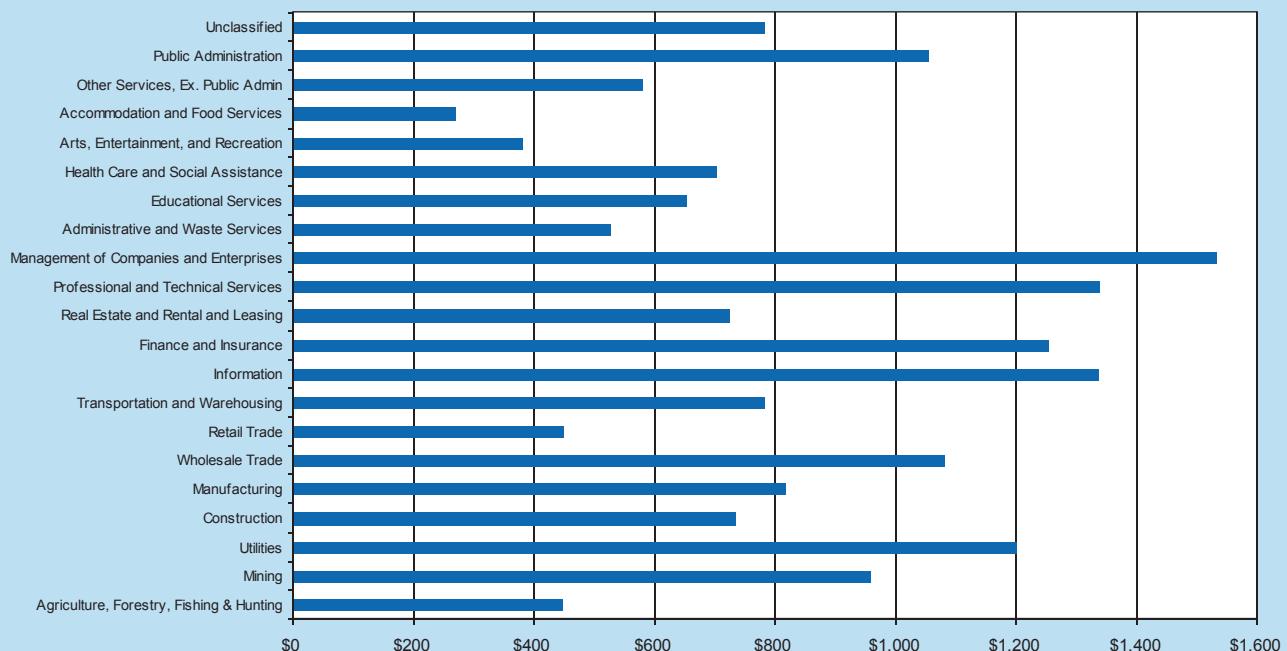
Virginia Employment by Industry



Source: Covered Employment and Wages (includes full- and part-time employment), annualized 2004

In 2004, Professional and Technical Services and Construction were the fastest-growing industries in both percent and absolute change. Professional and Technical Services employment increased 6.2 percent, for a gain of 17,800. Employment in the Construction industry grew 6.0 percent or by 13,000 jobs. Average weekly wages were highest in Management (\$1,533), Professional and Technical Services (\$1,338), Information (\$1,337), Finance and Insurance (\$1,255), and Utilities (\$1,200). (See Figure 5 on the next page.)

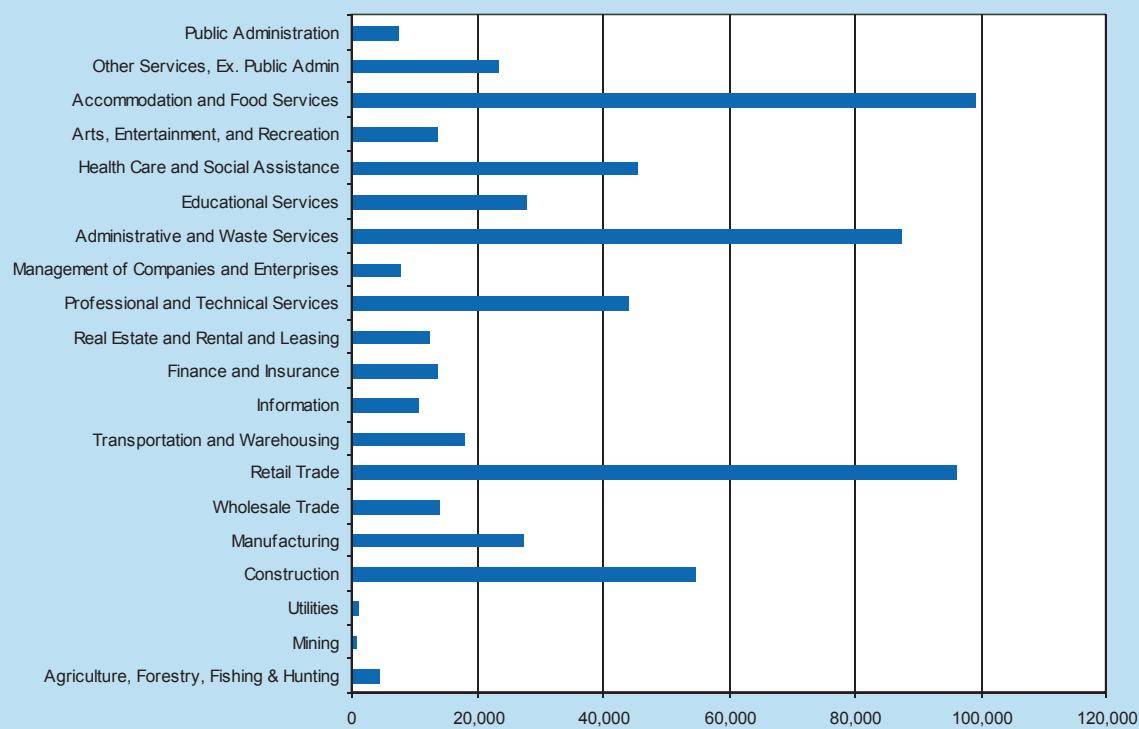
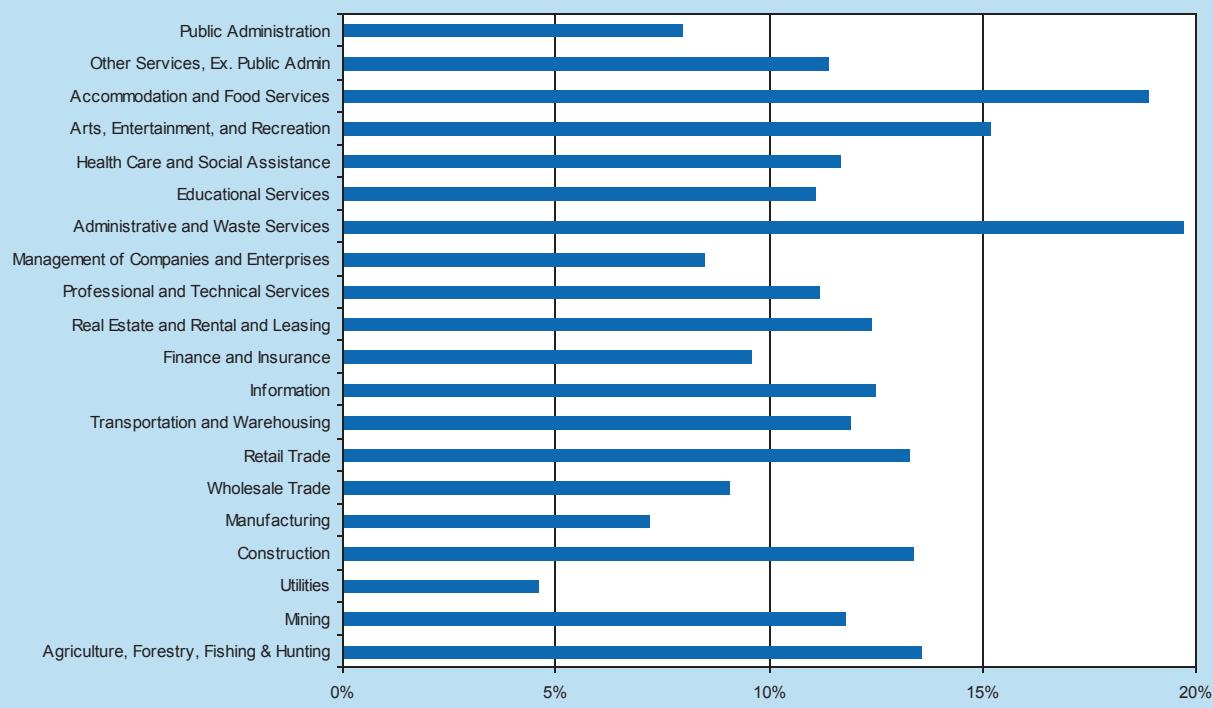
Figure 5

Virginia Average Weekly Wage by Industry

Source: Covered Employment and Wages, annualized 2004

New Hires and Turnover by Industry—According to the quarterly Local Employment Dynamics data from the Census, most of the recent new hires in Virginia have occurred in Accommodation and Food Services (16.3 percent), Retail Trade (15.8 percent), and Administrative and Waste Services (14.4 percent). (See Figure 6 on the following page.) This data also shows that higher personnel turnover has tended to take place in Administrative and Waste Services and Accommodation and Food Services, each approaching 20 percent turnover. (See Figure 7 on the following page.)

Top 50 Employers in Virginia—The 4th quarter 2004 quarterly census of employment and wages shows 203,488 employers in Virginia. The top 5 private employers in Virginia are Wal Mart, Newport News Shipbuilding, Food Lion, Sentara Healthcare, and Inova Fairfax Hospital. The U.S. Department of Defense is the top federal government employer. Fairfax County Public Schools is the top local government employer. The largest state employer is the University of Virginia Health Services. For a complete listing of the top 50 employers in Virginia, see Appendix A, page 92.

Figure 6**Virginia New Hires by Industry****Figure 7****Virginia Turnover by Industry**

Source: U.S. Census Bureau, Local Employment Dynamics (LED) Program, average 2004q2 and prior 3 quarters



State Workforce Needs

Fastest-Growing Occupations—The occupational employment projections show occupational demand based on forecasted industry growth. Over the 2002-2012 period, Management, Professional, and Related Occupations and Service Occupations are projected to be the fastest-growing major occupational groups, increasing 27.2 percent and 24.8 percent, respectively. The preferred education level of these varied jobs ranges from short-term on-the-job training to a master's degree.

Table 1 on the following page shows the top 25 fastest-growing occupations. In total, Computer Specialist occupations account for largest number of total job openings among the top 25 fastest-growing occupations. Over the 2002-2012 period, Computer Specialist occupations are projected to have over 42,000 total job openings, comprising over a third of the total openings of the 25 fastest-growing occupations. Two Computer Specialist occupations, Network Systems and Data Communications Analysts and Database Administrators, rank as the first and third fastest-growing occupations, respectively. The Business and Financial Operations occupational group accounts for the second-highest number of total job opening among the fastest-growing occupations. Collectively, Management Analysts, Personal Financial Advisors, and Tax Preparers account for over 22,000 total job openings. The Healthcare Support occupations have the third-largest number of total job openings, with over 19,000. Medical Assistants and Physical Therapist Aides rank as the second and fourth fastest-growing occupations, respectively. While Veterinary Technologists and Technicians is the fifth fastest-growing occupation, the projected number of total job openings is small. Security guards rank only 24th among the fastest growing, but has projected total job openings of nearly 16,000 over the 2002-2012 period.

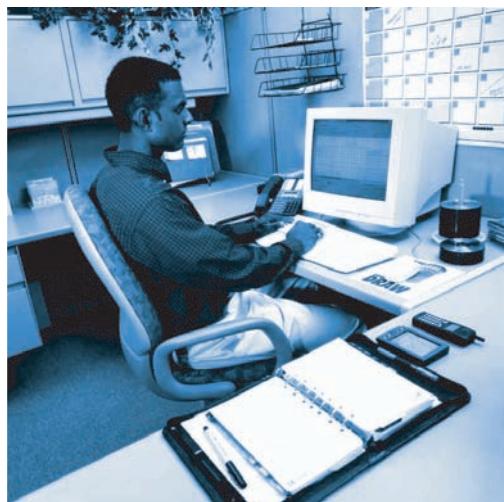


Table 1

**SPECIFIC OCCUPATIONS WITH THE LARGEST PERCENT INCREASE IN EMPLOYMENT (INCREASE > 499)
Virginia, 2002 – 2012**

Rank	Occupational Title	Employment			Openings		
		Estimated 2002	Projected 2012	% Change	Replacements	Growth	Total
1	Network Systems and Data Communications Analysts	5,507	9,308	69.02%	648	3,801	4,449
2	Medical Assistants	7,206	12,146	68.55%	1,333	4,940	6,273
3	Database Administrators	4,911	7,864	60.13%	508	2,953	3,461
4	Physical Therapist Aides	916	1,456	58.95%	153	540	693
5	Veterinary Technologists and Technicians	1,169	1,847	58.00%	152	678	830
6	Physical Therapist Assistants	1,229	1,918	56.06%	205	689	894
7	Personal Financial Advisors	2,072	3,220	55.41%	269	1,148	1,417
8	Computer Software Engineers, Applications	24,293	37,650	54.98%	2,402	13,357	15,759
9	Medical Records and Health Information Technicians	3,353	5,127	52.91%	480	1,774	2,254
10	Self-Enrichment Education Teachers	2,075	3,165	52.53%	255	1,090	1,345
11	Fitness Trainers and Aerobics Instructors	5,196	7,880	51.66%	1,192	2,684	3,876
12	Computer Software Engineers, Systems Software	18,660	28,293	51.62%	1,845	9,633	11,478
13	Home Health Aides	9,238	13,966	51.18%	1,210	4,728	5,938
14	Dental Hygienists	3,922	5,897	50.36%	334	1,975	2,309
15	Network and Computer Systems Administrators	12,274	18,451	50.33%	1,361	6,177	7,538
16	Environmental Engineers	1,606	2,402	49.56%	273	796	1,069
17	Dental Assistants	7,404	11,061	49.39%	2,070	3,657	5,727
18	Computer and Information Systems Managers	10,215	15,099	47.81%	1,855	4,884	6,739
19	Residential Advisors	1,310	1,913	46.03%	276	603	879
20	Management Analysts	30,973	45,216	45.99%	4,237	14,243	18,480
21	Tax Preparers	3,813	5,530	45.03%	628	1,717	2,345
22	Physical Therapists	2,987	4,303	44.06%	294	1,316	1,610
23	Occupational Therapists	1,717	2,473	44.03%	232	756	988
24	Security Guards	24,644	35,267	43.11%	5,363	10,623	15,986
25	Medical and Public Health Social Workers	1,364	1,939	42.16%	233	575	808

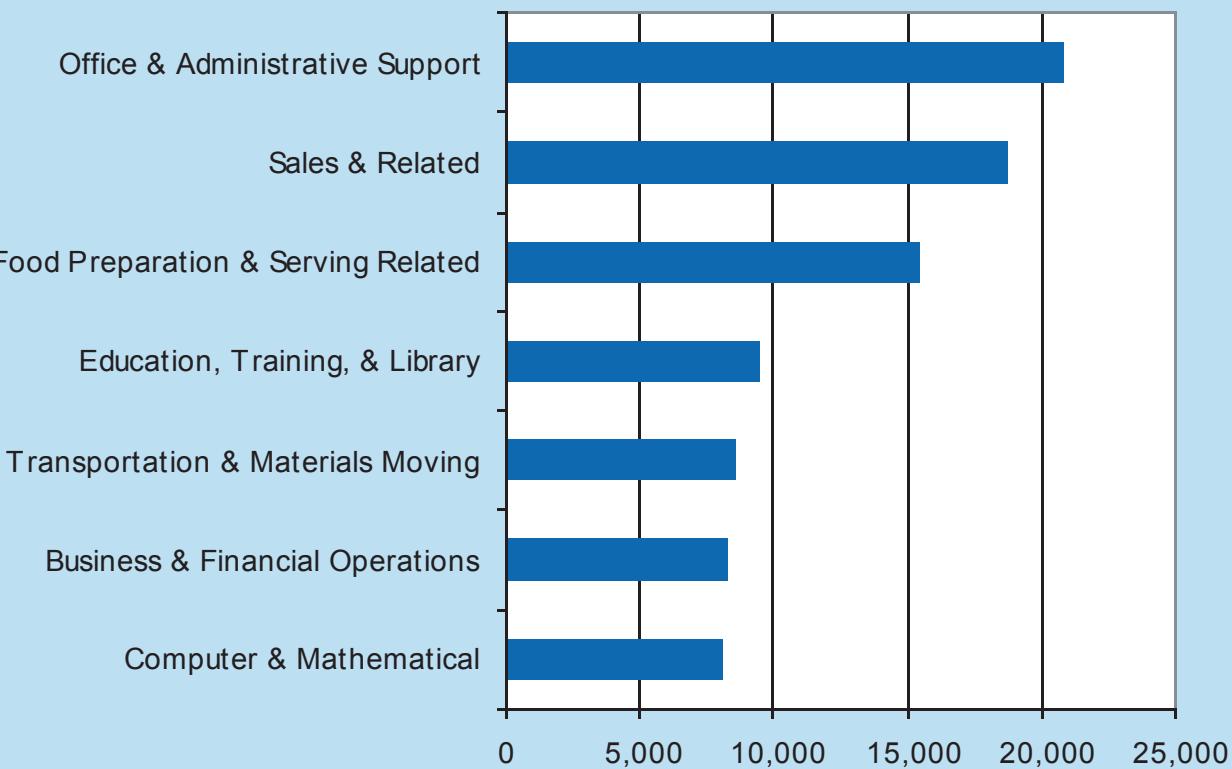
Source: Virginia Employment Commission

Occupations with the Largest Number of Openings—A look at the occupations with the largest number of total job openings over the 2000-2012 period provides another perspective. Between 2002 and 2012 there will be approximately 148,405 job openings each year in Virginia. Breaking this number down according to major occupational group shows that the largest number of annual openings, 20,834, is projected to occur in Office and Administrative Support. This group includes Office Supervisors, Communication Equipment Operators, Financial Clerks, Stock Clerks and Order Fillers, and Secretaries and Administrative Assistants. Office and Administrative Support is followed by Sales and Related Occupations – 18,749 average annual openings; Food Preparation and Serving Related – 15,424 average annual openings; Education, Training, and Library – 9,460 average annual openings; Transportation and Materials Moving – 8,557 average annual openings; Business and Financial Operations – 8,304 average annual openings; and Computer and Mathematical – 8,062 annual average openings.¹ (See Figure 8.)

¹ A. Fletcher Mangum, “The Occupation-Driven Demand for Trained Workers in the Commonwealth: 2002-2012,” Mangum Economic Consulting, LLC, October 2005, p. 1.

Figure 8

Highest Average Annual Job Openings, 2002 to 2012, by Major Occupational Group



Source: Virginia Employment Commission and Mangum Economic Consulting, LLC

Occupational Gaps²—To identify occupational gaps, likely workforce-driven demand for specific education and training programs, based on the projected changes in occupational employment, are compared with the likely supply of graduates from those programs. A crosswalk developed by the National Crosswalk Service Center (NCSC) is used to “map” occupations into the prerequisite education and training program(s) necessary for entry into that occupation.³ The analysis is then further refined by using a classification scheme developed by the Bureau of Labor Statistics (BLS) to “sort” occupations according to the minimum degree or award required for employment in that occupation.⁴ Through this combination of steps, the occupational employment projections are used to predict the workforce-driven demand for specific education and training programs.⁵ To estimate the likely supply of graduates within those education and training programs identified in the demand analysis, we use data from the U.S. Department of Education’s Integrated Postsecondary Education Data System (IPEDS).⁶ These data comprise all graduates from Virginia’s four-year public, two-year public, four-year private non-profit, four-year career, and two-year career colleges and universities in academic year 2002-03.

In interpreting the results of this analysis, there are at least three methodological limitations that the reader should keep in mind. First, the scope of the analysis is limited by the occupations contained in the NCSC crosswalk and the BLS education and training classification scheme. If an occupation is not included in both of those taxonomies, it is not included in this analysis. Similarly, the education and training programs contained in the NCSC crosswalk also limit the scope of the analysis. As a rule, this means that the only programs included in the analysis are those that are closely associated with one or more specific career paths. General programs, like General Studies or Liberal Arts, that provide a broad postsecondary educational experience, which prepares students for general employment, are excluded from the analysis.

² Mangum, pp. 2-7.

³ The National Crosswalk Service Center (NCSC) is funded by the U.S. Department of Labor, Employment and Training Administration. The specific NCSC crosswalk used in this analysis is the 2000 Standard Occupational Classification Crosswalk to 2000 Classification of Instructional Programs. This crosswalk identifies the prerequisite instructional programs (classified according to the National Center for Educational Statistics’ 2000 Classification of Instructional Program, or CIP, code) necessary for employment in 1,364 specific occupations (classified according to the Bureau of Labor Statistics’ 2000 Standard Occupational Classification, or SOC, code).

Often, these are many-to-many relationships where a given instructional program can serve as an avenue into one of many jobs, or one of several instructional programs can serve as a prerequisite for a given job.

⁴ The Bureau of Labor Statistics classifies occupations according to eleven education and training categories. Four of these involve on-the-job training or work experience only and the remaining seven require some level of postsecondary education (i.e., first-professional degree, doctoral degree, master’s degree, bachelor’s degree, associate’s degree, or postsecondary vocational training). For purposes of this study, we restrict the analysis to occupations that fall within these seven education and training categories.

⁵ More formally, the demand for education and training programs is calculated as:

$$DCIP_i = \sum Dcip_{ij}$$

Where,

$$Dcip_{ij} = (SOC_j)(GCIP_i / \sum Gcip_{ij})$$

and,

DCIP_i = the annual demand for instructional program i

$\sum Dcip_{ij}$ = the annual demand for instructional program i across all occupation(s) j

SOC_j = the projected annual openings for occupation j

GCIP_i = Virginia graduates from instructional program i

$\sum Gcip_{ij}$ = Virginia graduates from all instructional program(s) i related to occupation j

⁶ “Integrated Postsecondary Education Data System,” National Center for Education Statistics,

U.S. Department of Education <<http://nces.ed.gov/ipeds/>>.

Second, the accuracy of the analysis is dependent on the accuracy of VEC's occupational employment projections and on the accuracy of NCSC's crosswalk. That accuracy is likely to be higher in established occupations, like teaching and nursing where employment trends and educational requirements are well established, than in evolving occupations like those in the technology field.

Third, the analysis implicitly assumes that recent graduates from Virginia education and training programs fill all new openings. As a result, it does not take into account the in-migration of workers trained in other states, or the churning of previously trained workers within Virginia as they move from job to job.

For these reasons, the assessment of likely workforce-driven demand for specific education and training programs developed in this study is best used as an indicator of relative demand across programs and not as a precise measure of demand.

Table 2 on the following page identifies those programs where a comparison of the likely workforce-driven demand for graduates from specific education and training programs with the likely supply of graduates indicates a potential annual shortage of 200 or more. As the data contained in Table 2 indicate, the largest gaps tend to be in accounting, computer, education, and healthcare related occupations. Complete results from the gap analysis are provided in Appendix B, page 95.



Table 2**OCCUPATIONAL GAP ANALYSIS**

DEGREE	DEMAND			SUPPLY			GAP
	SOCCODE	SOCTITLE	Annual Demand	CIPCODE	CIPTITLE	Annual Supply	
MA	193021	Market Research Analysts	295	450601	Economics, General	76	219
BA	132011	Accountants and Auditors	1,616	520301	Accounting	768	848
BA	151021	Computer Programmers	1,116	521201	Management Information Systems, General	317	799
BA	252021	Elementary School Teachers, Except Special Education	715	131206	Teacher Education, Multiple Levels	49	666
BA	252021	Elementary School Teachers, Except Special Education	656	131202	Elementary Education and Teaching	45	611
BA	151051	Computer Systems Analysts	1,379	110101	Computer and Information Sciences, General	834	545
BA	151031	Computer Software Engineers, Applications	750	141001	Electrical, Electronics, and Communication Engineering	303	447
BA	151031	Computer Software Engineers, Applications	547	140901	Computer Engineering, General	221	326
BA	252031	Secondary School Teachers, Except Special and Vocational Education	541	131314	Physical Education Teaching and Coaching	300	241
BA	151032	Computer Software Engineers, Systems Software	599	110401	Information Science/Studies	365	234
Assoc.	291111	Registered Nurses	2,629	511601	Nursing - Registered Nurse Training (RN, ASN, BSN, MSN)	1,007	1,622
Assoc.	151041	Computer Support Specialists	1,029	110301	Data Processing and Data Processing Technology/Technician	17	1,012
Assoc.	292071	Medical Records and Health Information Technicians	225	510707	Health Information/ MedicalRecords Technology/Technician	11	214
Cert.	493023	Automotive Service Technicians and Mechanics	866	470604	Automobile/Automotive Mechanics Technology/Technician	79	787
Cert.	292061	Licensed Practical and Licensed Vocational Nurses	843	511613	Licensed Practical/Vocational Nurse Training (LPN, LVN, Cert, Dipl, AAS)	566	277

Fastest-Declining Occupations—Table 3 shows the top 25 occupations with the largest percent decrease in employment between 2002 and 2012. Word Processors and Typists is ranked first, with a projected decline of 37.4 percent. There are five other Office and Administrative Support occupations ranked in the top 25: Meter Readers (15), Computer Operators (19), Eligibility Interviewers, Government Programs (22), and Loan Interviewers and Clerks (23). Textile Bleaching and Dyeing Machine Operators and Tenders is ranked second and projected to decrease 33.3 percent. There are five other occupations in the Textile, Apparel, and Furnishings Workers occupation group that are ranked in the top 25: Textile Knitting and Weaving Machine Setters, Operators, and Tenders (5), Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders (6), Extruding and Forming Machine Setters, Operators and Tenders, Synthetic or Glass Fibers (7), Sewing Machine Operators (11), and Upholsterers (13). Radio Mechanics and Fallers are ranked third and fourth, respectively, and are projected to decline about 31 percent.

Table 3

**SPECIFIC OCCUPATIONS WITH THE LARGEST PERCENT DECREASE IN EMPLOYMENT (DECREASE > 99)
Virginia, 2002 – 2012**

Rank	Occupational Title	Employment			Openings		
		Estimated 2002	Projected 2012	% Change	Replacements	Growth	Total
1	Word Processors and Typists	2,435	1,523	-37.45%	537	0	537
2	Textile Bleaching & Dyeing Machine Operators & Tenders	1,037	691	-33.37%	265	0	265
3	Radio Mechanics	425	290	-31.76%	88	0	88
4	Fallers	533	367	-31.14%	98	0	98
5	Textile Knitting & Weaving Machine Sttrs, Oprtrs, & Tndrs	1,614	1,114	-30.98%	181	0	181
6	Textile Windg/Twistg/Drawg Out Mchn Sttrs/Oprtrs/Tndrs	1,928	1,363	-29.30%	359	0	359
7	Extrudg/Formg Mchn Sttrs/Oprtrs/Tndrs, Synthtc/Gls Fbrs	1,345	959	-28.70%	261	0	261
8	Roof Bolters, Mining	468	338	-27.78%	85	0	85
9	Logging Equipment Operators	1,301	966	-25.75%	240	0	240
10	Electrical and Electronic Equipment Assemblers	3,998	3,023	-24.39%	945	0	945
11	Sewing Machine Operators	7,777	5,939	-23.63%	963	0	963
12	Chemical Plant and System Operators	593	463	-21.92%	184	0	184
13	Upholsterers	1,045	829	-20.67%	265	0	265
14	Coil Winders, Tapers, and Finishers	644	514	-20.19%	152	0	152
15	Meter Readers, Utilities	1,241	1,034	-16.68%	391	0	391
16	Announcers	1,228	1,024	-16.61%	311	0	311
17	Continuous Mining Machine Operators	904	755	-16.48%	257	0	257
18	Chemical Equipment Operators and Tenders	1,334	1,127	-15.52%	426	0	426
19	Computer Operators	4,544	4,014	-11.66%	967	0	967
20	Paper Goods Machine Setters, Operators, and Tenders	3,874	3,490	-9.91%	823	0	823
21	Telecommnctns Eqpmnt Installrs/Repairrs, Ex Line Instllrs	6,446	5,820	-9.71%	1,334	0	1,334
22	Eligibility Interviewers, Government Programs	2,395	2,192	-8.48%	638	0	638
23	Loan Interviewers and Clerks	5,263	4,833	-8.17%	721	0	721
24	Woodworking Machine Sttrs/Oprtrs/Tndrs, Except Sawing	4,706	4,374	-7.05%	1,236	0	1,236
25	Prepress Technicians and Workers	2,363	2,199	-6.94%	554	0	554

Source: Virginia Employment Commission

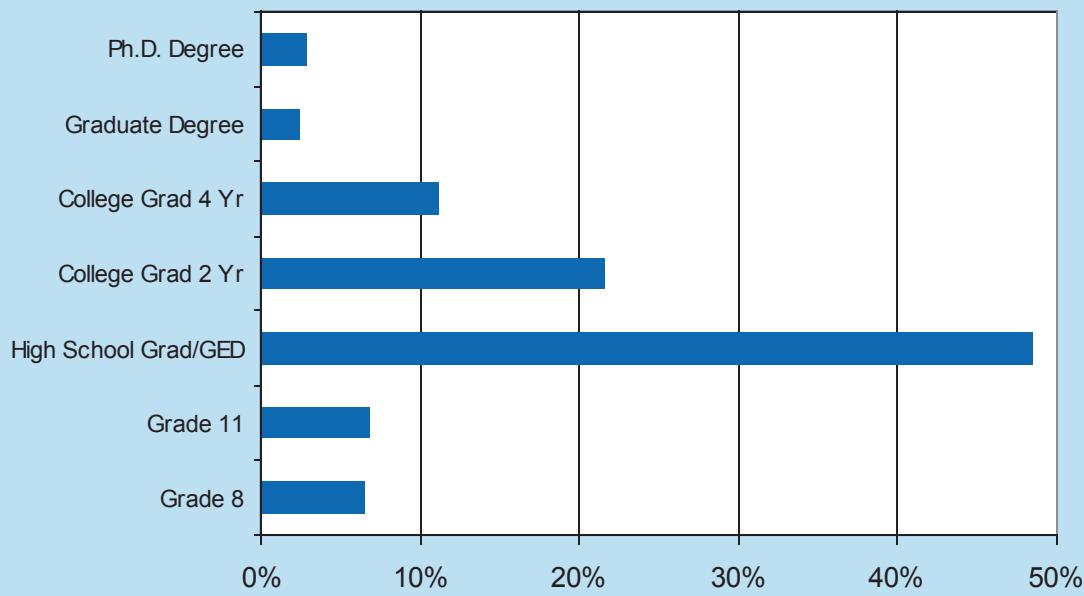
State Workforce Supply



Characteristics of the Unemployed—Unemployed individuals are available for immediate hire and are an important source of labor supply. Monthly data that is collected when unemployed individuals apply for unemployment insurance benefits provide information on the various characteristics of the unemployed claimants. In September, approximately 7 out of 8 claimants in Virginia had a 12th grade education level or higher. (See Figure 9.) Claimants with a high school education level accounted 49 percent of all claimants, and claimants with an associate's degree or higher accounted for 38 percent of the total.

Figure 9

Virginia Unemployed Claimants by Education Level



Source: Virginia Employment Commission, ES203 September 2005

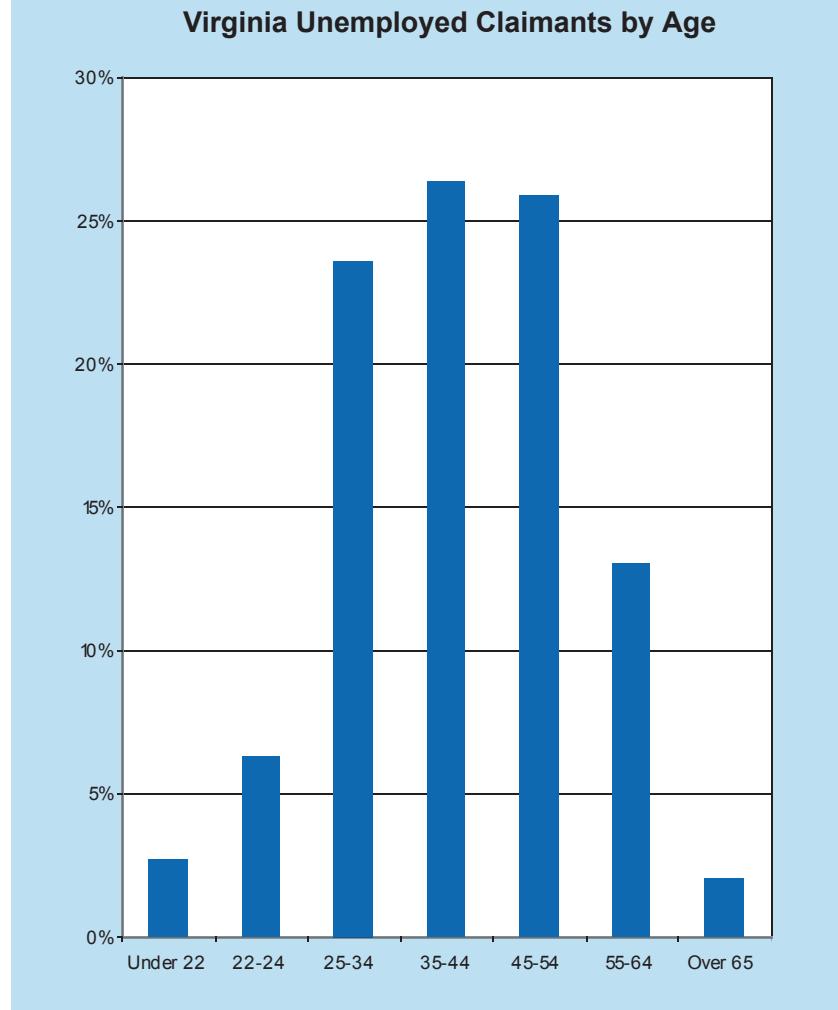
Production Workers comprised the largest category of unemployed individuals, with 22 percent of the total in September 2005. (See Table 4.) Office and Administrative Support workers also accounted for a significant share, comprising 14 percent of the total. Figure 10 on the following page shows that in September 2005 just over 75 percent of the claimants were in the 25-54 age range and were almost evenly distributed across the 25-34, 35-44, and 45-54 age categories.

Table 4

VIRGINIA UNEMPLOYED CLAIMANTS BY OCCUPATION

Occupation	Number of Claimants
Management	2,835
Business and Financial Operations	1,110
Computer and Mathematical	1,047
Architecture and Engineering	436
Life, Physical, and Social Science	145
Community and Social Services	287
Legal	187
Education, Training, and Library and Media	780
Protective Services	410
Healthcare Practitioners and Technical	487
Healthcare Support	851
Food Preparation and Serving Related and Maintenance	1,261
Personal Care and Service	831
Sales and Related	368
Office and Administrative Support	2,853
Farming, Fishing, and Forestry	4,788
Construction and Extraction	85
Installation, Maintenance, and Repair	2,249
Production	1,518
Transportation and Material Moving	7,110
Military Specific	139
Total	33,030

Source: Virginia Employment Commission, ES203 September 2005

Figure 10

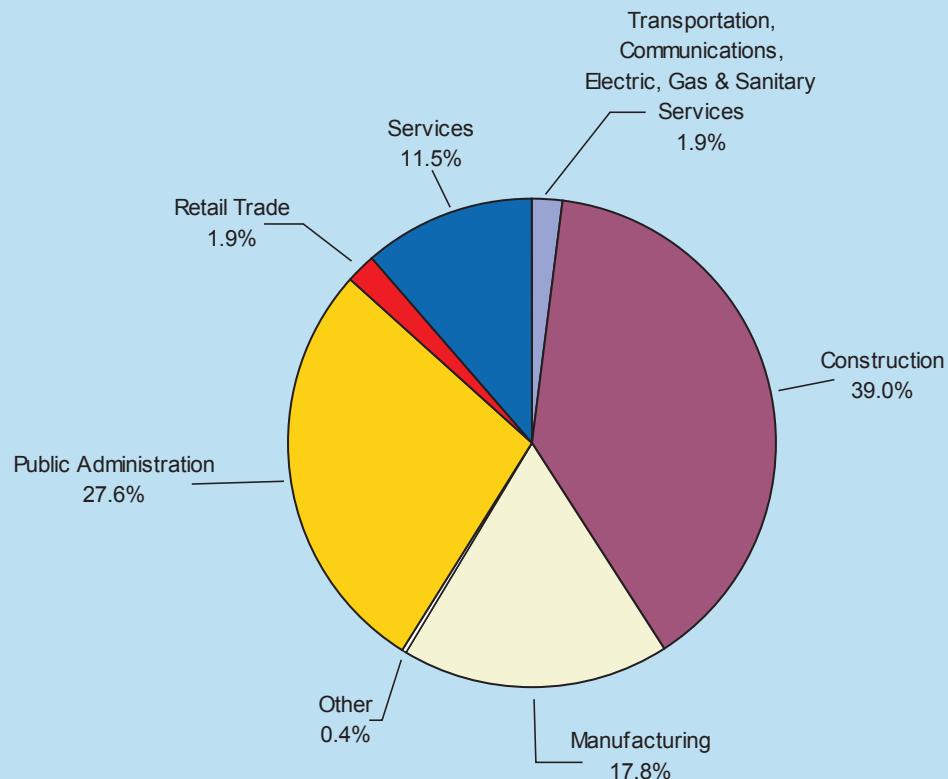
Source: Virginia Employment Commission, ES203 September 2005

Apprenticeship Programs and Completion Rates—Information on registered apprenticeship program participation and number of Certificates of Completion issued present another dimension of Virginia’s workforce supply. Registered apprenticeship is an agreement between an employer who needs a skilled worker and an individual who wants to earn a living while learning. The registered apprenticeship system trains employees in over 300 occupations in Virginia and helps businesses develop and maintain a skilled, dedicated workforce. Approximately 2,000 Virginia employers in all sectors of the economy, including manufacturing, construction, services, and technology, currently use this system to meet their skill training needs.

In 2004, Virginia's registered apprentices worked in a variety of industries, as illustrated in Figure 11. The average age of registered apprentices in Virginia is 29. From July 1, 2004, through June 30, 2005, electrician was the top occupation in number of active apprentices, with 2,800 or 23 percent of the total number of active apprentices. With 6 percent of the total number of active apprentices, electronics mechanic, cosmetologist, and plumber were ranked second, third, and fourth, respectively, with 713, 707, and 685 active apprentices. Environmental control systems occupation was ranked fifth, with 525 active apprentices or 4 percent of the total. Over the July 1, 2004, through June 20, 2005 period, two occupations accounted for over a third of the certificates issued. Electricians were issued the largest number of certificates, with 343 or almost 21 percent of the total. Cosmetologists were ranked second in number of certificates issued with 221 or over 13 percent.

Figure 11

Virginia's Registered Apprentices by Industry-2004



Source: DOLI 2004 Annual Report

Retirees—Retirees or those approaching retirement are another important factor to consider in assessing Virginia’s future labor supply. Retirees are reentering the workforce for various reasons; and according to a survey by the AARP, 79 percent of Baby Boomers expect to work in retirement.⁷ As retirees anticipate living longer, they are returning to work because they need the money and health benefits. Some of these retirees experienced a decline in the value

of their stock and have been affected by eroding retirement benefits. Although some retirees are returning to work for financial reasons, others are choosing to work because they want to stay mentally active. These retirees want to continue to be productive and make a contribution by performing meaningful work.



In Virginia, the 55-64 and 65+ age cohorts are the fastest growing. On average, slightly over 50,000 Virginians turn 65 every year. The number of Virginians 65 years and over in the labor force has been trending upward since early in the decade despite a dip in 2004. Over the 2001-2004 period, the civilian labor force 65 years and over in Virginia has increased 13.8 percent, while the civilian non-institutional population for this group increased only 3.1 percent. The labor force participation rate for the 65 years and over cohort was 15 percent in 2004, up from 13.5 percent in 2001.

Exiting Military—The military has a significant presence in Virginia and as personnel exit, the military provides a skilled potential labor source for Virginia. According to the 2003 Survey of Retired Military from Defense Manpower Data Center, 71 percent of retired military are in the labor force—69 percent of military retirees are employed and 2 percent are unemployed. These retirees are well educated with almost all having at least a high school education by the time they leave the service and almost a third have a bachelor’s degree or better.



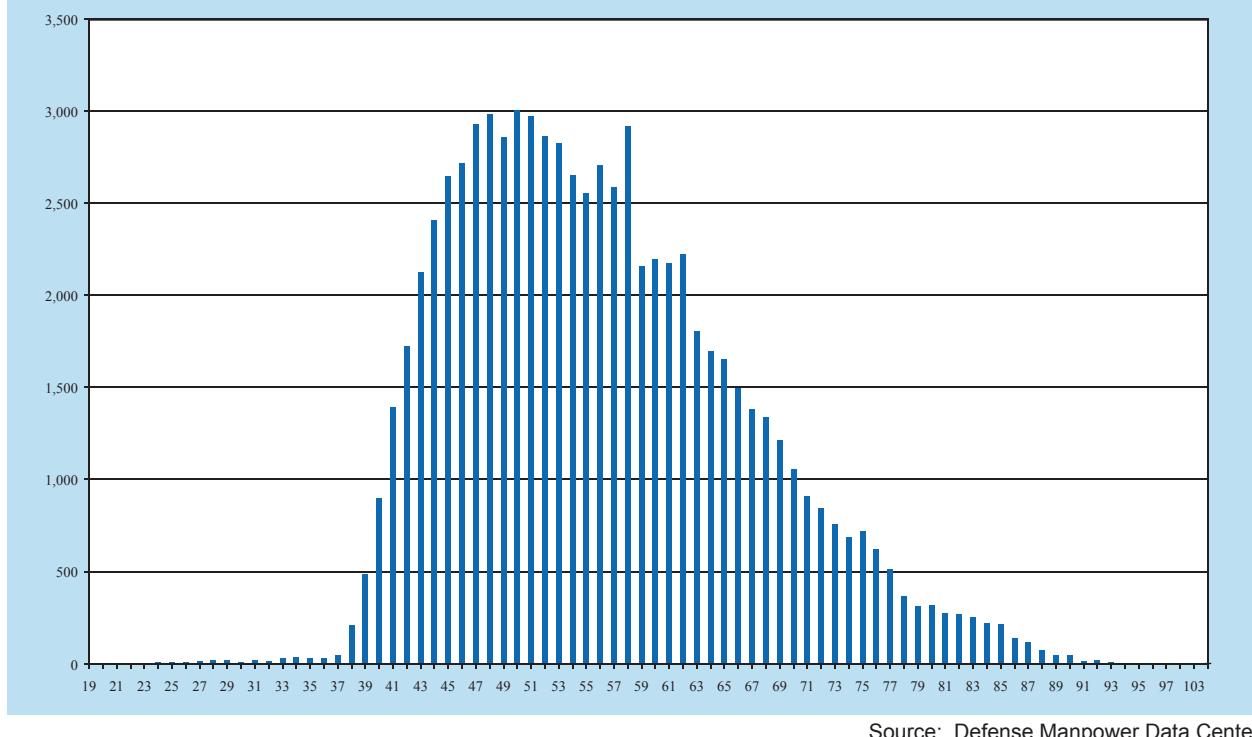
⁷ AARP, “Baby Boomers Envision Retirement II: Survey of Baby Boomers’ Expectations for Retirement,” May 2004 <http://www.aarp.org/money/careers/employerresourcecenter/researchanddata/a2004-08-10-envisionret.html>.

As of September 2005, there were almost 77,000 military retirees in Virginia. Of those retirees, the largest group, nearly 36 percent, retired after they served 20 years. The mean age of Virginia's military retirees is 56 and nearly two-thirds of the retirees are between the ages of 45-64. (See Figure 12.)

As of September 30, 2005, there were approximately 744,000 veterans in Virginia. The education benefit figures for Virginia show that 63,423 eligible veterans trained under Chapter 30 of the Montgomery GI Bill and 14,390 Selected Reserve members trained under Chapter 1606 of the Montgomery GI Bill as of September 30, 2005.

Figure 12

Age Distribution of Virginia Military Retires as of September 2005

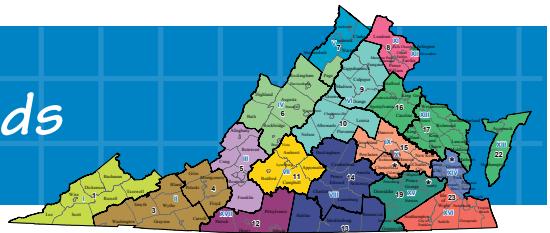


Source: Defense Manpower Data Center

International and Internal Migration—People moving into Virginia from other countries and states are an important component of Virginia's labor market—with migration, employment growth is not constrained by current population and labor supply. Over a four-year period, 2000-2004, net migration in Virginia totaled 203,084. Net migration from other countries accounted for 57 percent of the total or 115,500. Net internal migration accounted for the remaining 87,500. Illegal workers, while not captured in the migration figures, are a market-driven component of the labor force in some areas and may be a factor to consider when assessing labor supply in these areas of Virginia.

Prison Re-entry—Inmates realeased from state institutions and local jails are another potential labor supply source. Approximately 10,000 inmates are released from state institutions each year. They average 35 years of age. A third of them are under 30 years of age. Forty-six percent of those inmates released from state institutions participated in either academic or vocational programming. Of those 46 percent, about 10-15 percent were vocational program participants.

Regional Workforce Needs



During the summer of 2005, the Virginia Economic Development Partnership (VEDP) and the Virginia Community College System presented the results of a joint project to identify industry-based and skills-based clusters for nineteen regions across the state. Traditional industry cluster analysis was used to group industries that share a similar customer and supplier network, while occupational cluster analysis was used to group industries that draw from the same pool of skilled workers. Using data provided by the Virginia Employment Commission (VEC) and the combination of both cluster methods, the analysis identified industry recruitment targets that are a good fit for each region, both in terms of their connection to the existing or emerging regional industry base, and in terms of their compatibility with the region's workforce.

For each of the nineteen regions of the study, the following tables of information have been provided:

- **Existing Industry Clusters**

A complete list of the industry clusters that have been identified using industry-by-industry purchase data to group industries that have a strong customer-supplier relationship. These industries are ranked by 2004 employment.

- **Emerging Industry Clusters**

Additional industry clusters were identified for each region by looking for existing industries that exhibited high growth⁸ and were *not* members of a regional cluster, but were identified as members of a national cluster. These industries have the potential to drive the formation of a new regional cluster and were labeled "emerging." Again, these industries are ranked by 2004 employment.

- **Top 25 Occupations for Existing Industry Clusters**

Combining all of the existing industry clusters in the aggregate, staffing pattern data from the VEC was applied to regional industry employment to generate the required employment by occupation. The top 25 occupations, by 2004 employment, are listed here.

- **Top 25 Occupations for Emerging Industry Clusters**

Combining all of the emerging industry clusters in the aggregate, staffing pattern data from the VEC was applied to regional industry employment to generate the required employment by occupation. The top 25 occupations, by 2004 employment, are listed here.

⁸As measured by employment growth over the past year.

- **Existing Clusters, Industry List**

and

- **Emerging Clusters, Industry List**

Member industries (4-digit NAICS) are listed for each cluster, with industries left out if employment did not exceed 10 employees in 2004. Clusters are listed in alphabetical order, but individual industries are ranked in descending order by 2004 employment.

- **Top 25 Skills-Based Industry Targets for Displaced Workers**

This table displays the top 25 skills-based industry recruitment targets for the region, based on a comparison of the skills inherent to the region's displaced workers and the skill requirements of individual industries. A total of 295 industries were ranked.

Additional information on the data and methodology for the industry-based and occupation-based cluster analysis can be found on the VEDP's Virginia Ally Information Exchange website at:
<http://www.virginiaallies.org/research.asp#cluster>.

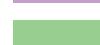
The map on the following page illustrates the overlap between the cluster study regions and the local workforce investment areas. Where the regions do not match perfectly, in most cases two or more cluster regions can be combined to match a local workforce investment area. In many cases, the regions overlap completely.

Map Key

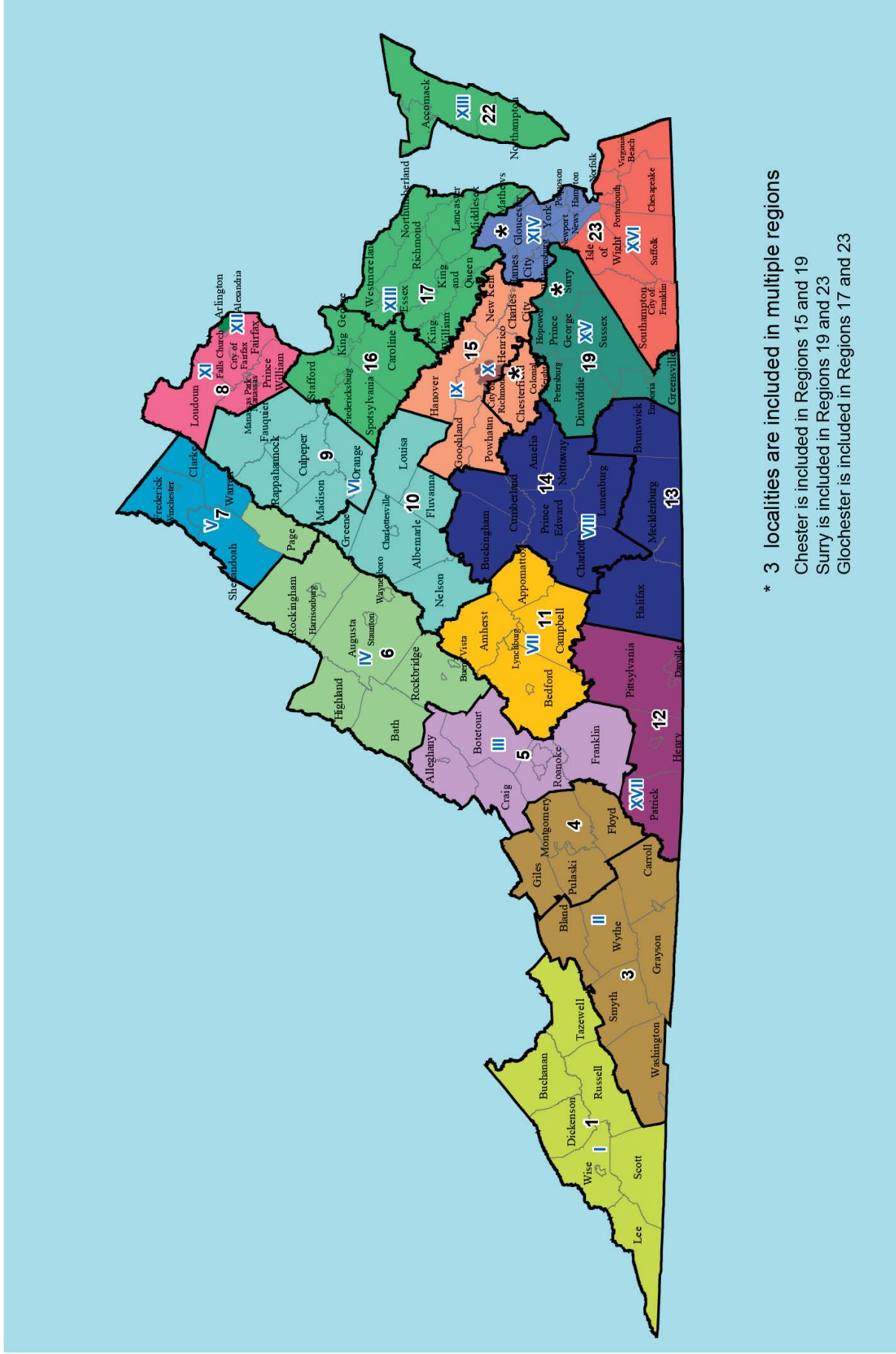
Economic Study Regions

- 1-Virginia Coalfield
- 3-Virginia's aCorridor
- 4-New River Valley
- 5-Roanoke Valley
- 6-Shenandoah Valley
- 7-Northern Shenandoah Valley
- 8-Northern Virginia
- 9-Rappahannock Region
- 10-Greater Charlottesville
- 11-Region 2000
- 12-Southside Virginia
- 13-Lake Country
- 14-Virginia's Heartland
- 15-Greater Richmond
- 16-Greater Fredericksburg
- 17-Virginia's River Country
- 19-Virginia's Gateway
- 22-Eastern Shore
- 23-Hampton Roads

Local Workforce Investment Areas

	I		X
	II		XI
	III		XII
	IV		XIII
	V		XIV
	VI		XV
	VII		XVI
	VIII		XVII
	IX		

Economic Study Regions for Cluster Analysis



- 3 localities are included in multiple regions

Chester is included in Regions 15 and 19
Surry is included in Regions 19 and 23
Gloster is included in Regions 17 and 23

Index for Economic Study Regions

Virginia Coalfield.....	25
Virginia's aCorridor	28
New River Valley.....	32
Roanoke Valley	35
Shenandoah Valley	39
Northern Shenandoah Valley.....	43
Northern Virginia	46
Rappahannock Region.....	50
Greater Charlottesville	53
Region 2000	57
Southside Virginia	61
Lake Country.....	65
Virginia's Heartland.....	68
Greater Richmond.....	71
Greater Fredericksburg	75
Virginia's River Country.....	78
Virginia's Gateway	81
Eastern Shore	85
Hampton Roads.....	88

Virginia Coalfield Existing Industry Clusters (ranked by 2004 employment)	
HEALTH CARE	
MINING*	
DISTRIBUTION & WAREHOUSING	
WOOD PRODUCT MANUFACTURING	
METALS AND RELATED MANUFACTURING	
NONMETALLIC MINERALS & RELATED PRODUCTS*	
AGRICULTURE, FORESTRY, AND FISHING*	

* These clusters have low growth potential and therefore would not be considered as "target" clusters, although individual industries may have good growth potential.

Virginia Coalfield Emerging Industry Clusters (ranked by 2004 employment)	
INFORMATION TECHNOLOGY AND PROFESSIONAL SERVICES	
FINANCE AND INSURANCE	
TEXTILES & APPAREL*	

Top 25 Occupations for Existing Industry Clusters	
Estimated Employment 2004 q4	
Registered Nurses	1,124
Truck Drivers, Heavy and Tractor-Trailer	952
Nursing Aides, Orderlies, and Attendants	758
Excavating and Loading Machine and Dragline Operators	527
Continuous Mining Machine Operators	495
Licensed Practical and Licensed Vocational Nurses	386
Office Clerks, General	344
First-Line Supervisors/Managers of Construction Trades and Extraction Workers	305
Maintenance and Repair Workers, General	302
Laborers and Freight, Stock, and Material Movers, Hand	288
Operating Engineers and Other Construction Equipment Operators	277
Roof Bolters, Mining	273
Home Health Aides	272
Mobile Heavy Equipment Mechanics, Except Engines	266
Truck Drivers, Light or Delivery Services	261
General and Operations Managers	226
Maids and Housekeeping Cleaners	166
Loading Machine Operators, Underground Mining	157
Personal and Home Care Aides	157
Electricians	149
First-Line Supervisors/Managers of Production and Operating Workers	145
Industrial Truck and Tractor Operators	135
Emergency Medical Technicians and Paramedics	126
Bookkeeping, Accounting, and Auditing Clerks	125
First-Line Supervisors/Managers of Transportation and Material-Moving Machine Operators	123

Top 25 Occupations for Emerging Industry Clusters	
Estimated Employment 2004 q4	
Sewing Machine Operators	98
Insurance Sales Agents	75
Customer Service Representatives	56
Office Clerks, General	51
Civil Engineers	45
Electrical Engineers	41
General and Operations Managers	37
Computer Systems Analysts	29
Secretaries, Except Legal, Medical, and Executive	28
Management Analysts	27
Claims Adjusters, Examiners, and Investigators	24
Architects, Except Landscape and Naval	24
First-Line Supervisors/Managers of Office and Administrative	23
Executive Secretaries and Administrative Assistants	23
Computer Software Engineers, Systems Software	21
Receptionists and Information Clerks	21
Computer Software Engineers, Applications	20
Bookkeeping, Accounting, and Auditing Clerks	20
Veterinary Assistants and Laboratory Animal Caretakers	20
Architectural and Civil Drafters	20
Civil Engineering Technicians	20
Accountants and Auditors	20
Insurance Underwriters	20
Engineering Managers	18
Computer Programmers	18

Existing Clusters, Industry List: Virginia Coalfield

AGRICULTURE, FORESTRY, AND FISHING
Cattle Ranching and Farming
Support Activities for Forestry
Vegetable and Melon Farming
Support Activities for Animal Production
Other Animal Production
DISTRIBUTION & WAREHOUSING
Specialized Freight Trucking
General Freight Trucking
Warehousing and Storage
Other Support Activities for Transportation
Automotive Equipment Rental and Leasing
Support Activities for Rail Transportation
Support Activities for Air Transportation
Freight Transportation Arrangement
HEALTH CARE
General Medical and Surgical Hospitals
Nursing Care Facilities
Home Health Care Services
Community Care Facilities for the Elderly
Other Ambulatory Health Care Services
Outpatient Care Centers
Other Residential Care Facilities
Residential Mental Retardation, Mental Health and Substance Abuse Facilities
Medical and Diagnostic Laboratories
METALS AND RELATED MANUFACTURING
Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing
Cutlery and Handtool Manufacturing
MINING
Coal Mining
Nonmetallic Mineral Mining and Quarrying
Metal Ore Mining

Existing Clusters, Industry List: Virginia Coalfield (continued)

NONMETALLIC MINERALS & RELATED PRODUCTS
Cement and Concrete Product Manufacturing
Lime and Gypsum Product Manufacturing
Petroleum and Coal Products Manufacturing
Other Chemical Product and Preparation Manufacturing
Rubber Product Manufacturing
WOOD PRODUCT & FURNITURE MANUFACTURING
Other Furniture Related Product Manufacturing
Household and Institutional Furniture and Kitchen Cabinet Manufacturing
Office Furniture (including Fixtures) Manufacturing

Emerging Clusters, Industry List: Virginia Coalfield

FINANCE AND INSURANCE
Agencies, Brokerages, and Other Insurance Related Activities
Nondepositary Credit Intermediation
Securities and Commodity Contracts Intermediation and Brokerage
Lessors of Nonfinancial Intangible Assets (except Copyrighted Works)
Other Financial Investment Activities
INFORMATION TECHNOLOGY AND PROFESSIONAL SERVICES
Architectural, Engineering, and Related Services
Other Professional, Scientific, and Technical Services
Data Processing, Hosting, and Related Services
Computer Systems Design and Related Services
TEXTILES & APPAREL
Cut and Sew Apparel Manufacturing
Textile and Fabric Finishing and Fabric Coating Mills
Other Textile Product Mills

Top 25 Skills-Based Industry Targets for Virginia Coalfield's Displaced Workers

The table below displays the top 25 skills-based industry recruitment targets* for Virginia Coalfield, based on a comparison of the skills inherent to the region's displaced workers and the skill requirements of individual industries.

Rank	Industry Title
1	Florists
2	Travel Arrangement and Reservation Services
3	Wholesale Electronic Markets and Agents and Brokers
4	Business Support Services
5	Community Care Facilities for the Elderly
6	Other Residential Care Facilities
7	Residential Mental Retardation, Mental Health and Substance Abuse Facilities
8	Paper and Paper Product Merchant Wholesalers
9	Wireless Telecommunications Carriers (except Satellite)
10	Nursing Care Facilities
11	Hardware, and Plumbing and Heating Equipment and Supplies Merchant Wholesalers
12	Beer, Wine, and Distilled Alcoholic Beverage Merchant Wholesalers
13	Individual and Family Services
14	Furniture and Home Furnishing Merchant Wholesalers
15	Facilities Support Services
16	Vocational Rehabilitation Services
17	Personal Care Services
18	Apparel, Piece Goods, and Notions Merchant Wholesalers
19	Electronic Shopping and Mail-Order Houses
20	Newspaper, Periodical, Book, and Directory Publishers
21	Electrical and Electronic Goods Merchant Wholesalers
22	Miscellaneous Nondurable Goods Merchant Wholesalers
23	Automotive Parts, Accessories, and Tire Stores
24	Machinery, Equipment, and Supplies Merchant Wholesalers
25	Motor Vehicle and Motor Vehicle Parts and Supplies Merchant Wholesalers

*A total of 295 industries were ranked.

Virginia's aCorridor Existing Industry Clusters

(ranked by 2004 employment)

- HEALTH CARE
- AUTOMOTIVE MANUFACTURING*
- DISTRIBUTION & WAREHOUSING
- WOOD PRODUCT MANUFACTURING
- FOOD PROCESSING*
- COMMUNICATION & ENTERTAINMENT
- AGRICULTURE, FORESTRY, AND FISHING*

* These clusters have low growth potential and therefore would not be considered as "target" clusters, although individual industries may have good growth potential.

Virginia's aCorridor Emerging Industry Clusters

(ranked by 2004 employment)

- CHEMICALS & MATERIALS*
- FINANCE AND INSURANCE
- METALS AND RELATED MANUFACTURING
- ELECTRONICS EQUIPMENT & INSTRUMENTS MANUFACTURING
- TEXTILES & APPAREL*
- INFORMATION TECHNOLOGY AND PROFESSIONAL SERVICES
- MEDICAL RELATED PRODUCTS MANUFACTURING*

Top 25 Occupations for Existing Industry Clusters

	Estimated Employment 2004 q4
Nursing Aides, Orderlies, and Attendants	1,027
Team Assemblers	995
Registered Nurses	985
Truck Drivers, Heavy and Tractor-Trailer	868
Laborers and Freight, Stock, and Material Movers, Hand	535
Licensed Practical and Licensed Vocational Nurses	425
Office Clerks, General	419
Welders, Cutters, Solderers, and Brazers	383
Inspectors, Testers, Sorters, Samplers, and Weighers	340
Sewing Machine Operators	327
Industrial Truck and Tractor Operators	320
Assemblers and Fabricators, All Other	298
Maintenance and Repair Workers, General	297
Customer Service Representatives	293
Home Health Aides	285
General and Operations Managers	265
Bookkeeping, Accounting, and Auditing Clerks	257
First-Line Supervisors/Managers of Production and Operating Workers	254
Maids and Housekeeping Cleaners	223
Truck Drivers, Light or Delivery Services	222
Accountants and Auditors	204
First-Line Supervisors/Managers of Office and Administrative	202
Shipping, Receiving, and Traffic Clerks	181
Molding, Coremaking, and Casting Machine Setters, Operators, Tenders, Metal & Plastic	178
Tellers	171

* These clusters have low growth potential and therefore would not be considered as "target" clusters, although individual industries may have good growth potential.

Top 25 Occupations for Emerging Industry Clusters

	Estimated Employment 2004 q4
Team Assemblers	630
Sewing Machine Operators	327
Inspectors, Testers, Sorters, Samplers, and Weighers	232
Customer Service Representatives	207
Welders, Cutters, Solderers, and Brazers	197
First-Line Supervisors/Managers of Production and Operating Workers	180
Tellers	171
Assemblers and Fabricators, All Other	163
Accountants and Auditors	162
Office Clerks, General	153
Maintenance and Repair Workers, General	148
Molding, Coremaking, and Casting Machine Setters, Operators, Tenders, Metal & Plastic	145
Bookkeeping, Accounting, and Auditing Clerks	136
Shipping, Receiving, and Traffic Clerks	120
First-Line Supervisors/Managers of Office & Administrative	118
Loan Officers	117
Industrial Truck and Tractor Operators	115
Extruding and Drawing Machine Setters, Operators, and Tenders, Metal & Plastic	113
General and Operations Managers	104
Cutting, Punching, Press Machine Setters, Operators, and Tenders, Metal & Plastic	99
Electrical and Electronic Equipment Assemblers	94
Metal Workers and Plastic Workers, All Other	94
Laborers and Freight Stock, and Material Movers, Hand	87
Insurance Sales Agents	82
Helpers—Production Workers	75

Existing Clusters, Industry List: Virginia's aCorridor	
AGRICULTURE, FORESTRY, AND FISHING	Cattle Ranching and Farming
	Greenhouse, Nursery, and Floriculture Production
	Fruit and Tree Nut Farming
	Support Activities for Crop Production
	Support Activities for Animal Production
	Other Crop Farming
	Support Activities for Forestry
AUTOMOTIVE MANUFACTURING	Motor Vehicle Parts Manufacturing
	Architectural and Structural Metals Manufacturing
	Engine, Turbine, and Power Transmission Equipment Manufacturing
COMMUNICATION & ENTERTAINMENT	Radio and Television Broadcasting
	Wired Telecommunications Carriers
	Cable and Other Program Distribution
	Wireless Telecommunications Carriers (except Satellite)
DISTRIBUTION & WAREHOUSING	Telecommunications Resellers
	General Freight Trucking
	Specialized Freight Trucking
	Warehousing and Storage
	Automotive Repair and Maintenance
	Automotive Equipment Rental and Leasing
	Support Activities for Road Transportation
	Taxi and Limousine Service
	Support Activities for Air Transportation
	Freight Transportation Arrangement
	Interurban and Rural Bus Transportation
	Scenic and Sightseeing Transportation, Land
FOOD PROCESSING	Other Food Manufacturing

Existing Clusters, Industry List: Virginia's aCorridor (continued)	
FOOD PROCESSING (continued)	Dairy Product Manufacturing
	Bakeries and Tortilla Manufacturing
	Sugar and Confectionery Product Manufacturing
	Animal Slaughtering and Processing
HEALTH CARE	General Medical and Surgical Hospitals
	Nursing Care Facilities
	Community Care Facilities for the Elderly
	Home Health Care Services
	Other Ambulatory Health Care Services
	Residential Mental Retardation, Mental Health and Substance Abuse Facilities
	Other Residential Care Facilities
	Outpatient Care Centers
	Medical and Diagnostic Laboratories
WOOD PRODUCT & FURNITURE MANUFACTURING	Other Wood Product Manufacturing
	Sawmills and Wood Preservation
	Veneer, Plywood, and Engineered Wood Product Manufacturing

Emerging Clusters, Industry List: Virginia's aCorridor

Emerging Clusters, Industry List: Virginia's aCorridor (continued)

CHEMICALS & MATERIALS	Plastics Product Manufacturing	Fabric Mills
	Rubber Product Manufacturing	Cut and Sew Apparel Manufacturing
	Paint, Coating, and Adhesive Manufacturing	Apparel Accessories and Other Apparel Manufacturing
ELECTRONICS EQUIPMENT & INSTRUMENTS MANUFACTURING	Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing	Other Textile Product Mills
	Aerospace Product and Parts Manufacturing	
	Other Electrical Equipment and Component Manufacturing	
FINANCE AND INSURANCE	Depository Credit Intermediation	
	Agencies, Brokerages, and Other Insurance Related Activities	
	Nonddepository Credit Intermediation	
	Securities and Commodity Contracts Intermediation and Brokerage	
	Activities Related to Credit Intermediation	
INFORMATION TECHNOLOGY AND PROFESSIONAL SERVICES	Accounting, Tax Preparation, Bookkeeping, and Payroll Services	
	Computer Systems Design and Related Services	
	Other Professional, Scientific, and Technical Services	
	Scientific Research and Development Services	
	Data Processing, Hosting, and Related Services	
MEDICAL RELATED PRODUCTS MANUFACTURING	Other Miscellaneous Manufacturing	
	Medical Equipment and Supplies Manufacturing	
METALS AND RELATED MANUFACTURING	Electrical Equipment Manufacturing	
	Other General Purpose Machinery Manufacturing	
	Other Fabricated Metal Product Manufacturing	
	Spring and Wire Product Manufacturing	
	Metalworking Machinery Manufacturing	
	Industrial Machinery Manufacturing	
	Coating, Engraving, Heat Treating, and Allied Activities	
	Iron and Steel Mills and Ferroalloy Manufacturing	

Top 25 Skills-Based Industry Targets for Virginia's aCorridor's Displaced Workers

The table below displays the top 25 skills-based industry recruitment targets* for Virginia's aCorridor, based on a comparison of the skills inherent to the region's displaced workers and the skill requirements of individual industries.

Rank	Industry Title
1	Grocery and Related Product Wholesalers
2	Bakeries and Tortilla Manufacturing
3	Petroleum and Petroleum Products Merchant Wholesalers
4	Lawn and Garden Equipment and Supplies Stores
5	Other Support Activities for Transportation
6	Employment Services
7	Miscellaneous Nondurable Goods Merchant Wholesalers
8	Direct Selling Establishments
9	Traveler Accommodation
10	Miscellaneous Durable Goods Merchant Wholesalers
11	Other Furniture Related Product Manufacturing
12	Amusement Parks and Arcades
13	Other Amusement and Recreation Industries
14	Seafood Product Preparation and Packaging
15	Warehousing and Storage
16	Lumber and Other Construction Materials Merchant Wholesalers
17	Rooming and Boarding Houses
18	Automotive Parts, Accessories, and Tire Stores
19	Clay Product and Refractory Manufacturing
20	Other Support Services
21	Beer, Wine, and Distilled Alcoholic Beverage Merchant Wholesalers
22	Motor Vehicle and Motor Vehicle Parts and Supplies Merchant Wholesalers
23	Other Personal Services
24	Sugar and Confectionery Product Manufacturing
25	Glass and Glass Product Manufacturing

*A total of 295 industries were ranked.

New River Valley Existing Industry Clusters

(ranked by 2004 employment)

HEALTH CARE
INFORMATION TECHNOLOGY AND PROFESSIONAL SERVICES
METALS AND RELATED MANUFACTURING
TEXTILES & APPAREL*
AGRICULTURE, FORESTRY, AND FISHING*

New River Valley Emerging Industry Clusters

(ranked by 2004 employment)

AUTOMOTIVE MANUFACTURING*
FINANCE AND INSURANCE
WOOD PRODUCT & FURNITURE MANUFACTURING
FOOD PROCESSING*
PRINTING & PAPER PRODUCTS MANUFACTURING*
COMMUNICATION & ENTERTAINMENT

* These clusters have low growth potential and therefore would not be considered as "target" clusters, although individual industries may have good growth potential.

Top 25 Occupations for Existing Industry Clusters

	Estimated Employment 2004 q4
Team Assemblers	940
Registered Nurses	700
Welders, Cutters, Solderers, and Brazers	593
Nursing Aides, Orderlies, and Attendants	544
Assemblers and Fabricators, All Other	494
Inspectors, Testers, Sorters, Samplers, and Weighers	320
Licensed Practical and Licensed Vocational Nurses	227
Office Clerks, General	225
Maintenance and Repair Workers, General	201
Industrial Truck and Tractor Operators	186
Personal and Home Care Aides	175
Customer Service Representatives	153
General and Operations Managers	150
Bookkeeping, Accounting, and Auditing Clerks	144
Painters, Transportation Equipment	133
Home Health Aides	131
Maids and Housekeeping Cleaners	127
Molding, Coremaking, and Casting Machine Setters, Operators, Tenders, Metal & Plastic	126
Janitors and Cleaners, Except Maids and Housekeeping Cleaner	124
Farmworkers and Laborers, Crop, Nursery, and Greenhouse	121
Tellers	119
Electricians	110
Child, Family, and School Social Workers	107
Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal & Plastic	106
First-Line Supervisors/Managers of Office and Administrative	101

Top 25 Occupations for Emerging Industry Clusters

	Estimated Employment 2004 q4
Team Assemblers	918
Welders, Cutters, Solderers, and Brazers	576
Assemblers and Fabricators, All Other	486
Inspectors, Testers, Sorters, Samplers, and Weighers	301
Industrial Truck and Tractor Operators	179
Maintenance and Repair Workers, General	160
Customer Service Representatives	136
Painters, Transportation Equipment	133
Molding, Coremaking, and Casting Machine Setters, Operators, Tenders, Metal & Plastic	126
Tellers	119
Electricians	105
Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal & Plastic	96
Bookkeeping, Accounting, and Auditing Clerks	92
General and Operations Managers	90
Shipping, Receiving, and Traffic Clerks	90
Industrial Engineers	89
Industrial Machinery Mechanics	86
First-Line Supervisors/Managers of Mechanics, Installers, and Repairers	82
Loan Officers	82
Electrical and Electronic Equipment Assemblers	82
Carpenters	76
Janitors and Cleaners, Except Maids and Housekeeping Cleaner	76
Installation, Maintenance, and Repair Workers, All Other	75
Office Clerks, General	69
Insurance Sales Agents	69

Existing Clusters, Industry List: New River Valley	
AGRICULTURE, FORESTRY, AND FISHING	
Greenhouse, Nursery, and Floriculture Production	
Cattle Ranching and Farming	
Logging	
Support Activities for Forestry	
Forest Nurseries and Gathering of Forest Products	
Support Activities for Animal Production	
Support Activities for Crop Production	
HEALTH CARE	
General Medical and Surgical Hospitals	
Community Care Facilities for the Elderly	
Nursing Care Facilities	
Individual and Family Services	
Home Health Care Services	
Vocational Rehabilitation Services	
Other Ambulatory Health Care Services	
Psychiatric and Substance Abuse Hospitals	
Other Residential Care Facilities	
Outpatient Care Centers	
Community Food and Housing, and Emergency and Other Relief Services	
Residential Mental Retardation, Mental Health and Substance Abuse Facilities	
INFORMATION TECHNOLOGY AND PROFESSIONAL SERVICES	
Software Publishers	
Internet Service Providers and Web Search Portals	
Architectural and Structural Metals Manufacturing	
Spring and Wire Product Manufacturing	
TEXTILES & APPAREL	
Textile and Fabric Finishing and Fabric Coating Mills	
Apparel Knitting Mills	
Other Textile Product Mills	

Emerging Clusters, Industry List: New River Valley	
AUTOMOTIVE MANUFACTURING	
Motor Vehicle Manufacturing	
Motor Vehicle Parts Manufacturing	
Electric Lighting Equipment Manufacturing	
Spectator Sports	
Independent Artists, Writers, and Performers	
FINANCE AND INSURANCE	
Depository Credit Intermediation	
Agencies, Brokerages, and Other Insurance Related Activities	
Insurance Carriers	
Securities and Commodity Contracts Intermediation and Brokerage	
Activities Related to Credit Intermediation	
Insurance and Employee Benefit Funds	
FOOD PROCESSING	
Animal Food Manufacturing	
Bakeries and Tortilla Manufacturing	
PRINTING & PAPER PRODUCTS MANUFACTURING	
Lime and Gypsum Product Manufacturing	
Printing and Related Support Activities	
WOOD PRODUCT & FURNITURE MANUFACTURING	
Other Wood Product Manufacturing	
Veneer, Plywood, and Engineered Wood Product Manufacturing	

Top 25 Skills-Based Industry Targets for New River Valley's Displaced Workers

The table below displays the top 25 skills-based industry recruitment targets* for New River Valley, based on a comparison of the skills inherent to the region's displaced workers and the skill requirements of individual industries.

Rank	Industry Title
1	Animal Slaughtering and Processing
2	Services to Buildings and Dwellings
3	Highway, Street, and Bridge Construction
4	Waste Collection
5	General Freight Trucking
6	Specialized Freight Trucking
7	Support Activities for Crop Production
8	Cut and Sew Apparel Manufacturing
9	Couriers
10	Other Specialty Trade Contractors
11	Apparel Accessories and Other Apparel Manufacturing
12	Logging
13	School and Employee Bus Transportation
14	Support Activities for Animal Production
15	Household and Institutional Furniture and Kitchen Cabinet Manufacturing
16	Utility System Construction
17	Cement and Concrete Product Manufacturing
18	Other Heavy and Civil Engineering Construction
19	Support Activities for Road Transportation
20	Remediation and Other Waste Management Services
21	Drycleaning and Laundry Services
22	Sawmills and Wood Preservation
23	Waste Treatment and Disposal
24	Footwear Manufacturing
25	Other Textile Product Mills

*A total of 295 industries were ranked.

Roanoke Valley Existing Industry Clusters

(ranked by 2004 employment)

HEALTH CARE
 COMMUNICATION & ENTERTAINMENT
 MACHINERY & EQUIPMENT MANUFACTURING
 FOOD PROCESSING*
 ELECTRONICS EQUIPMENT & INSTRUMENTS MANUFACTURING
 MINING*

* These clusters have low growth potential and therefore would not be considered as "target" clusters, although individual industries may have good growth potential.

Roanoke Valley Emerging Industry Clusters

(ranked by 2004 employment)

INFORMATION TECHNOLOGY AND PROFESSIONAL SERVICES
 WOOD PRODUCT & FURNITURE MANUFACTURING
 FINANCE AND INSURANCE
 CHEMICALS & MATERIALS*
 AUTOMOTIVE MANUFACTURING*
 TEXTILES & APPAREL*
 AGRICULTURE, FORESTRY, AND FISHING*

Top 25 Occupations for Existing Industry Clusters

	Estimated Employment 2004 q4
Registered Nurses	3,084
Nursing Aides, Orderlies, and Attendants	2,006
Office Clerks, General	1,019
Licensed Practical and Licensed Vocational Nurses	931
Team Assemblers	763
Accountants and Auditors	752
Customer Service Representatives	559
Bookkeeping, Accounting, and Auditing Clerks	558
Home Health Aides	541
Maids and Housekeeping Cleaners	492
Lawyers	470
First-Line Supervisors/Managers of Office and Administrative Secretaries, Except Legal, Medical, and Executive	460
General and Operations Managers	460
Secretaries, Except Legal, Medical, and Executive	449
Laborers and Freight, Stock, and Material Movers, Hand	422
General and Operations Managers	413
Tellers	370
Woodworking Machine Setters, Operators, and Tenders, Except Sawing	329
Maintenance and Repair Workers, General	329
Receptionists and Information Clerks	310
First-Line Supervisors/Managers of Production and Operating	299
Loan Officers	281
Sewing Machine Operators	276
Industrial Truck and Tractor Operators	263
Executive Secretaries and Administrative Assistants	259
Inspectors, Testers, Sorters, Samplers, and Weighers	235

Top 25 Occupations for Emerging Industry Clusters

	Estimated Employment 2004 q4
Accountants and Auditors	676
Team Assemblers	656
Office Clerks, General	486
Lawyers	470
Customer Service Representatives	428
Tellers	413
Bookkeeping, Accounting, and Auditing Clerks	405
Woodworking Machine Setters, Operators, and Tenders, Except Sawing	370
Laborers and Freight, Stock, and Material Movers, Hand	332
First-Line Supervisors/Managers of Office and Administrative	303
Loan Officers	281
Sewing Machine Operators	276
General and Operations Managers	236
Secretaries, Except Legal, Medical, and Executive	234
Industrial Truck and Tractor Operators	230
Paralegals and Legal Assistants	226
First-Line Supervisors/Managers of Production and Operating	222
Tax Preparers	216
Sawing Machine Setters, Operators, and Tenders, Wood	208
Insurance Sales Agents	201
Inspectors, Testers, Sorters, Samplers, and Weighers	201
Carpenters	195
Legal Secretaries	179
Executive Secretaries and Administrative Assistants	159
Receptionists and Information Clerks	153

Existing Clusters, Industry List: Roanoke Valley

Existing Clusters, Industry List: Roanoke Valley (continued)

COMMUNICATION & ENTERTAINMENT	
Newspaper, Periodical, Book, and Directory Publishers	
Radio and Television Broadcasting	
Advertising and Related Services	
Consumer Goods Rental	
General Rental Centers	
Commercial and Industrial Machinery and Equipment Rental and Leasing	
Data Processing, Hosting, and Related Services	
Cable and Other Subscription Programming	
ELECTRONICS EQUIPMENT & INSTRUMENTS MANUFACTURING	
Other Electrical Equipment and Component Manufacturing	
Electric Lighting Equipment Manufacturing	
Household Appliance Manufacturing	
FOOD PROCESSING	
Animal Slaughtering and Processing	
Bakeries and Tortilla Manufacturing	
Dairy Product Manufacturing	
Grain and Oilseed Milling	
Sugar and Confectionery Product Manufacturing	
HEALTH CARE	
General Medical and Surgical Hospitals	
Nursing Care Facilities	
Community Care Facilities for the Elderly	
Home Health Care Services	
Other Ambulatory Health Care Services	
Other Residential Care Facilities	
Outpatient Care Centers	
Medical and Diagnostic Laboratories	
Residential Mental Retardation, Mental Health and Substance Abuse Facilities	
Psychiatric and Substance Abuse Hospitals	
MACHINERY & EQUIPMENT MANUFACTURING	
Engine, Turbine, and Power Transmission Equipment Manufacturing	

Emerging Clusters, Industry List: Roanoke Valley	
AGRICULTURE, FORESTRY, AND FISHING	
Logging	
Support Activities for Forestry	
Support Activities for Animal Production	
Fruit and Tree Nut Farming	
Vegetable and Melon Farming	
AUTOMOTIVE MANUFACTURING	
Motor Vehicle Parts Manufacturing	
Motor Vehicle Body and Trailer Manufacturing	
CHEMICALS & MATERIALS	
Rubber Product Manufacturing	
Soap, Cleaning Compound, and Toilet Preparation Manufacturing	
Other Chemical Product and Preparation Manufacturing	
Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing	
FINANCE AND INSURANCE	
Depository Credit Intermediation	
Agencies, Brokerages, and Other Insurance Related Activities	
Nondepository Credit Intermediation	
Lessors of Nonfinancial Intangible Assets (except Copyrighted Works)	
Insurance and Employee Benefit Funds	
INFORMATION TECHNOLOGY AND PROFESSIONAL SERVICES	
Accounting, Tax Preparation, Bookkeeping, and Payroll Services	
Legal Services	
Architectural, Engineering, and Related Services	
Other Professional, Scientific, and Technical Services	
TEXTILES & APPAREL	
Cut and Sew Apparel Manufacturing	
Other Textile Product Mills	
Apparel Accessories and Other Apparel Manufacturing	

Emerging Clusters, Industry List: Roanoke Valley (continued)

WOOD PRODUCT & FURNITURE MANUFACTURING
Other Wood Product Manufacturing
Household and Institutional Furniture and Kitchen Cabinet Manufacturing
Veneer, Plywood, and Engineered Wood Product Manufacturing
Sawmills and Wood Preservation

Top 25 Skills-Based Industry Targets for Roanoke Valley's Displaced Workers

The table below displays the top 25 skills-based industry recruitment targets* for Roanoke Valley, based on a comparison of the skills inherent to the region's displaced workers and the skill requirements of individual industries.

Rank	Industry Title
1	Grocery and Related Product Wholesalers
2	Miscellaneous Nondurable Goods Merchant Wholesalers
3	Beer, Wine, and Distilled Alcoholic Beverage Merchant Wholesalers
4	Petroleum and Petroleum Products Merchant Wholesalers
5	Miscellaneous Durable Goods Merchant Wholesalers
6	Automotive Parts, Accessories, and Tire Stores
7	Lumber and Other Construction Materials Merchant Wholesalers
8	Motor Vehicle and Motor Vehicle Parts and Supplies Merchant Wholesalers
9	Employment Services
10	Metal and Mineral (except Petroleum) Merchant Wholesalers
11	Direct Selling Establishments
12	Other Furniture Related Product Manufacturing
13	Furniture and Home Furnishing Merchant Wholesalers
14	Chemical and Allied Products Merchant Wholesalers
15	Vocational Rehabilitation Services
16	Hardware, and Plumbing and Heating Equipment and Supplies Merchant Wholesalers
17	Apparel, Piece Goods, and Notions Merchant Wholesalers
18	Lawn and Garden Equipment and Supplies Stores
19	Other Support Activities for Transportation
20	Bakeries and Tortilla Manufacturing
21	Other Support Services
22	Warehousing and Storage
23	Newspaper, Periodical, Book, and Directory Publishers
24	Paper and Paper Product Merchant Wholesalers
25	Other Amusement and Recreation Industries

*A total of 295 industries were ranked.

Shenandoah Valley Existing Industry Clusters (ranked by 2004 employment)	
FOOD PROCESSING*	WOOD PRODUCT MANUFACTURING
HEALTH CARE	AGRICULTURE, FORESTRY, AND FISHING*
DISTRIBUTION & WAREHOUSING	ELECTRONICS EQUIPMENT & INSTRUMENTS MANUFACTURING
CHEMICALS & MATERIALS*	INFORMATION TECHNOLOGY AND PROFESSIONAL SERVICES
INFORMATION TECHNOLOGY AND PROFESSIONAL SERVICES	TEXTILES & APPAREL *
TEXTILES & APPAREL *	METALS AND RELATED MANUFACTURING

* These clusters have low growth potential and therefore would not be considered as "target" clusters, although individual industries may have good growth potential.

Shenandoah Valley Emerging Industry Clusters (ranked by 2004 employment)	
FINANCE AND INSURANCE	FINANCE AND INSURANCE*

Top 25 Occupations for Existing Industry Clusters	
	Estimated Employment 2004 q4
Laborers and Freight, Stock, and Material Movers, Hand	1,732
Registered Nurses	1,728
Truck Drivers, Heavy and Tractor-Trailer	1,655
Nursing Aides, Orderlies, and Attendants	1,326
Meat, Poultry, and Fish Cutters and Trimmers	979
Office Clerks, General	645
Industrial Truck and Tractor Operators	620
Sewing Machine Operators	618
Licensed Practical and Licensed Vocational Nurses	594
First-Line Supervisors/Managers of Production and Operating Workers	532
Slaughterers and Meat Packers	511
Packaging and Filling Machine Operators and Tenders	498
Truck Drivers, Light or Delivery Services	420
Team Assemblers	409
Maintenance and Repair Workers, General	405
Packers and Packagers, Hand	376
Stock Clerks and Order Fillers	370
Home Health Aides	365
General and Operations Managers	363
Helpers-Production Workers	344
Inspectors, Testers, Sorters, Samplers, and Weighers	334
Farmworkers and Laborers, Crop, Nursery, and Greenhouse	318
Maids and Housekeeping Cleaners	310
Bookkeeping, Accounting, and Auditing Clerks	283
Food Batchmakers	234

Top 25 Occupations for Emerging Industry Clusters	
	Estimated Employment 2004 q4
Insurance Sales Agents	47
Securities, Commodities, and Financial Services Sales Agents	42
Customer Service Representatives	40
Office Clerks, General	28
Personal Financial Advisors	21
Claims Adjusters, Examiners, and Investigators	15
First-Line Supervisors/Managers of Office and Administrative Workers	14
Executive Secretaries and Administrative Assistants	14
Brokerage Clerks	12
Insurance Underwriters	12
Bookkeeping, Accounting, and Auditing Clerks	12
Tellers	10
Loan Officers	8
Financial Analysts	8
Secretaries Except Legal, Medical, and Executive	8
Accountants and Auditors	8
Business Operations Specialists, All Other	8
General and Operations Managers	7
Financial Managers	7
Computer Systems Analysts	5
Receptionists and Information Clerks	4
Loan Interviewers and Clerks	4
First-Line Supervisors/Managers of Non-Retail Sales Workers	4
Management Analysts	3
Chief Executives	3

Existing Clusters, Industry List: Shenandoah Valley

Existing Clusters, Industry List: Shenandoah Valley (continued)

AGRICULTURE, FORESTRY, AND FISHING	Cattle Ranching and Farming
	Greenhouse, Nursery, and Floriculture Production
	Poultry and Egg Production
	Logging
	Fruit and Tree Nut Farming
	Support Activities for Crop Production
	Other Animal Production
	Other Crop Farming
	Support Activities for Animal Production
	Support Activities for Forestry
	Animal Aquaculture
CHEMICALS & MATERIALS	Resin, Synthetic Rubber, and Artificial Synthetic Fibers and Filaments Manufacturing
	Petroleum and Coal Products Manufacturing
	Other Chemical Product and Preparation Manufacturing
	Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing
	Paint, Coating, and Adhesive Manufacturing
DISTRIBUTION & WAREHOUSING	Warehousing and Storage
	General Freight Trucking
	Automotive Repair and Maintenance
	Specialized Freight Trucking
	Automotive Equipment Rental and Leasing
	Other Support Activities for Transportation
	Support Activities for Road Transportation
	Freight Transportation Arrangement
	Support Activities for Air Transportation
	Scenic and Sightseeing Transportation, Land
ELECTRONICS EQUIPMENT & INSTRUMENTS MANUFACTURING	Navigational, Measuring, Electromedical, and Control Instruments Manufacturing
	Communications Equipment Manufacturing
	Semiconductor and Other Electronic Component Manufacturing

Existing Clusters, Industry List: Shenandoah Valley (continued)	
METALS AND RELATED MANUFACTURING (continued)	
Nonferrous Metal (except Aluminum) Production and Processing	
Ship and Boat Building	
Agriculture, Construction, and Mining Machinery Manufacturing	
TEXTILES & APPAREL	
Textile Furnishings Mills	
Fabric Mills	
Fiber, Yarn, and Thread Mills	
Cut and Sew Apparel Manufacturing	
Other Textile Product Mills	
Textile and Fabric Finishing and Fabric Coating Mills	
WOOD PRODUCT & FURNITURE MANUFACTURING	
Sawmills and Wood Preservation	
Household and Institutional Furniture and Kitchen Cabinet Manufacturing	
Other Wood Product Manufacturing	
Pulp, Paper, and Paperboard Mills	
Veneer, Plywood, and Engineered Wood Product Manufacturing	

Emerging Clusters, Industry List: Shenandoah Valley	
FINANCE AND INSURANCE	
Insurance Carriers	
Securities and Commodity Contracts Intermediation and Brokerage	
Other Financial Investment Activities	
Activities Related to Credit Intermediation	

Top 25 Skills-Based Industry Targets for Shenandoah Valley's Displaced Workers

The table below displays the top 25 skills-based industry recruitment targets* for Shenandoah Valley, based on a comparison of the skills inherent to the region's displaced workers and the skill requirements of individual industries.

Rank	Industry Title
1	Clay Product and Refractory Manufacturing
2	Dairy Product Manufacturing
3	Support Activities for Water Transportation
4	Textile Furnishings Mills
5	Animal Food Manufacturing
6	Fruit and Vegetable Preserving and Specialty Food Manufacturing
7	Nonmetallic Mineral Mining and Quarrying
8	Veneer, Plywood, and Engineered Wood Product Manufacturing
9	Other Nonmetallic Mineral Product Manufacturing
10	Lime and Gypsum Product Manufacturing
11	Tobacco Manufacturing
12	Other Wood Product Manufacturing
13	Leather and Hide Tanning and Finishing
14	Glass and Glass Product Manufacturing
15	Seafood Product Preparation and Packaging
16	Railroad Rolling Stock Manufacturing
17	Rubber Product Manufacturing
18	Boiler, Tank, and Shipping Container Manufacturing
19	Sawmills and Wood Preservation
20	Other Furniture Related Product Manufacturing
21	Support Activities for Rail Transportation
22	Textile and Fabric Finishing and Fabric Coating Mills
23	Footwear Manufacturing
24	Other Leather and Allied Product Manufacturing
25	Coal Mining

*A total of 295 industries were ranked.

Northern Shenandoah Valley Existing Industry Clusters (ranked by 2004 employment)	
HEALTH CARE	AGRICULTURE, FORESTRY, AND FISHING*
FOOD PROCESSING*	ELECTRONICS EQUIPMENT & INSTRUMENTS MANUFACTURING
WOOD PRODUCT MANUFACTURING	
DISTRIBUTION & WAREHOUSING	
METALS AND RELATED MANUFACTURING	
AUTOMOTIVE MANUFACTURING*	
TEXTILES & APPAREL*	

* These clusters have low growth potential and therefore would not be considered as "target" clusters, although individual industries may have good growth potential.

Northern Shenandoah Valley Emerging Industry Clusters (ranked by 2004 employment)	
INFORMATION TECHNOLOGY AND PROFESSIONAL SERVICES	
FINANCE AND INSURANCE	
CHEMICALS & MATERIALS*	
TEXTILES & APPAREL*	

* These clusters have low growth potential and therefore would not be considered as "target" clusters, although individual industries may have good growth potential.

Top 25 Occupations for Existing Industry Clusters	
	Estimated Employment 2004 q4
Registered Nurses	1,270
Laborers and Freight, Stock, and Material Movers, Hand	980
Truck Drivers, Heavy and Tractor-Trailer	928
Nursing Aides, Orderlies, and Attendants	790
Office Clerks, General	496
Sewing Machine Operators	427
Industrial Truck and Tractor Operators	353
Licensed Practical and Licensed Vocational Nurses	346
Team Assemblers	341
Meat, Poultry, and Fish Cutters and Trimmers	314
General and Operations Managers	263
Bookkeeping, Accounting, and Auditing Clerks	256
Customer Service Representatives	241
Truck Drivers, Light or Delivery Services	239
First-Line Supervisors/Managers of Office and Administrative	235
Tellers	233
Maintenance and Repair Workers, General	229
Maids and Housekeeping Cleaners	226
Secretaries, Except Legal, Medical, and Executive	211
Farmworkers and Laborers, Crop, Nursery, and Greenhouse	203
Stock Clerks and Order Fillers	199
Accountants and Auditors	194
Inspectors, Testers, Sorters, Samplers, and Weighers	191
Slaughterers and Meat Packers	171
Nonfarm Animal Caretakers	164

Top 25 Occupations for Emerging Industry Clusters	
	Estimated Employment 2004 q4
Tellers	233
Office Clerks, General	178
Customer Service Representatives	171
Loan Officers	159
Lawyers	156
Accountants and Auditors	141
First-Line Supervisors/Managers of Office and Administrative	129
Bookkeeping, Accounting, and Auditing Clerks	111
Management Analysts	82
Loan Interviewers and Clerks	80
General and Operations Managers	77
Paralegals and Legal Assistants	76
Civil Engineers	74
Secretaries, Except Legal, Medical, and Executive	69
Electrical Engineers	67
Receptionists and Information Clerks	66
Computer Software Engineers, Applications	66
Executive Secretaries and Administrative Assistants	63
Computer Systems Analysts	61
Veterinary Assistants and Laboratory Animal Caretakers	61
Legal Secretaries	59
Bill and Account Collectors	57
Computer Software Engineers, Systems Software	54
Securities, Commodities, and Financial Services Sales Agents	53
Nonfarm Animal Caretakers	50

Existing Clusters, Industry List: Northern Shenandoah Valley

Existing Clusters, Industry List: Northern Shenandoah Valley (continued)	
METALS AND RELATED MANUFACTURING	Architectural and Structural Metals Manufacturing Nonferrous Metal (except Aluminum) Production and Processing
METALWORKING	Metalworking Machinery Manufacturing
MACHINERY	Machine Shop; Turned Product; and Screw, Nut, and Bolt Manufacturing
BOILER, TANK, AND SHIPPING CONTAINER MANUFACTURING	Boiler, Tank, and Shipping Container Manufacturing
TEXTILES & APPAREL	Cut and Sew Apparel Manufacturing
WOOD PRODUCT & FURNITURE MANUFACTURING	Other Wood Product Manufacturing
OTHER WOOD PRODUCT MANUFACTURING	Veneer, Plywood, and Engineered Wood Product Manufacturing Sawmills and Wood Preservation
Emerging Clusters, Industry List: Northern Shenandoah Valley	
CHEMICALS & MATERIALS	Resin, Synthetic Rubber, and Artificial Synthetic Fibers and Filaments Basic Chemical Manufacturing
FINANCE AND INSURANCE	Depository Credit Intermediation Nondepository Credit Intermediation
INFORMATION TECHNOLOGY AND PROFESSIONAL SERVICES	Securities and Commodity Contracts Intermediation and Brokerage Other Financial Investment Activities
ARCHITECTURAL, ENGINEERING, AND RELATED SERVICES	Architectural, Engineering, and Related Services
LEGAL SERVICES	Legal Services
OTHER PROFESSIONAL, SCIENTIFIC, AND TECHNICAL SERVICES	Other Professional, Scientific, and Technical Services
ACCOUNTING, TAX PREPARATION, BOOKKEEPING, AND PAYROLL SERVICES	Accounting, Tax Preparation, Bookkeeping, and Payroll Services
COMPUTER SYSTEMS DESIGN AND RELATED SERVICES	Computer Systems Design and Related Services
MANAGEMENT, SCIENTIFIC, AND TECHNICAL CONSULTING SERVICES	Management, Scientific, and Technical Consulting Services

Top 25 Skills-Based Industry Targets for Northern Shenandoah Valley's Displaced Workers

The table below displays the top 25 skills-based industry recruitment targets* for Northern Shenandoah Valley, based on a comparison of the skills inherent to the region's displaced workers and the skill requirements of individual industries.

Rank	Industry Title
1	Household and Institutional Furniture and Kitchen Cabinet Manufacturing
2	Farm Product Raw Material Merchant Wholesalers
3	Sawmills and Wood Preservation
4	Footwear Manufacturing
5	Leather and Hide Tanning and Finishing
6	Cement and Concrete Product Manufacturing
7	Nonmetallic Mineral Mining and Quarrying
8	Logging
9	Animal Slaughtering and Processing
10	Veneer, Plywood, and Engineered Wood Product Manufacturing
11	Other Furniture Related Product Manufacturing
12	Other Specialty Trade Contractors
13	Rubber Product Manufacturing
14	Coal Mining
15	Clay Product and Refractory Manufacturing
16	Other Wood Product Manufacturing
17	Support Activities for Water Transportation
18	Other Leather and Allied Product Manufacturing
19	Office Furniture (including Fixtures) Manufacturing
20	Apparel Accessories and Other Apparel Manufacturing
21	Cut and Sew Apparel Manufacturing
22	Support Activities for Animal Production
23	Seafood Product Preparation and Packaging
24	Highway, Street, and Bridge Construction
25	Other Heavy and Civil Engineering Construction

*A total of 295 industries were ranked.

Northern Virginia Existing Industry Clusters

(ranked by 2004 employment)

INFORMATION TECHNOLOGY AND PROFESSIONAL SERVICES	WOOD PRODUCT MANUFACTURING
COMMUNICATION, PUBLISHING AND BROADCASTING	CHEMICALS & MATERIALS*
ENTERTAINMENT	TEXTILES & APPAREL*
HEALTH CARE	MACHINERY & EQUIPMENT MANUFACTURING
FINANCE AND INSURANCE	FOOD PROCESSING*

* These clusters have low growth potential and therefore would not be considered as "target" clusters, although individual industries may have good growth potential.

Northern Virginia Emerging Industry Clusters

(ranked by 2004 employment)

ELECTRONICS EQUIPMENT & INSTRUMENTS MANUFACTURING
MEDICAL RELATED PRODUCTS MANUFACTURING*
AGRICULTURE, FORESTRY, AND FISHING*

Top 25 Occupations for Existing Industry Clusters

Estimated Employment 2004 q4
Computer Software Engineers, Applications
Computer Programmers
Computer Software Engineers, Systems Software
Computer Systems Analysts
Customer Service Representatives
Computer Support Specialists
Office Clerks, General
Registered Nurses
Management Analysts
Accountants and Auditors
General and Operations Managers
Network and Computer Systems Administrators
Nursing Aides, Orderlies, and Attendants
First-Line Supervisors/Managers of Office and Administrative
Bookkeeping, Accounting, and Auditing Clerks
Executive Secretaries and Administrative Assistants
Computer and Information Systems Managers
Secretaries, Except Legal, Medical, and Executive
Business Operations Specialists, All Other
Tellers
Receptionists and Information Clerks
Telecommunications Equipment Installers and Repairers, Except Line Installers
Loan Officers
Licensed Practical and Licensed Vocational Nurses
Electrical Engineers

* These clusters have low growth potential and therefore would not be considered as "target" clusters, although individual industries may have good growth potential.

Top 25 Occupations for Emerging Industry Clusters

Estimated Employment 2004 q4
Team Assemblers
Electrical and Electronic Equipment Assemblers
First-Line Supervisors/Managers of Production and Operating
Inspectors, Testers, Sorters, Samplers, and Weighers
Electrical and Electronic Engineering Technicians
Engineers, All Other
Farmworkers and Laborers, Crop, Nursery, and Greenhouse
General and Operations Managers
General and Operations Managers
Electrical Engineers
Laborers and Freight, Stock, and Material Movers, Hand
Dental Laboratory Technicians
Computer Software Engineers, Systems Software
Engineering Managers
Computer Software Engineers, Applications
Shipping, Receiving, and Traffic Clerks
Production, Planning, and Expediting Clerks
Customer Service Representatives
Office Clerks, General
Extruding and Drawing Machine Setters, Operators, and Tenders, Metal & Plastic
Machinists
Industrial Engineers
Maintenance and Repair Workers, General
Mechanical Engineers
Secretaries, Except Legal, Medical, and Executive
Sales Representatives, Wholesale and Manufacturing, Except Technical & Scientific Products

Existing Clusters, Industry List: Northern Virginia	
CHEMICALS & MATERIALS	
Plastics Product Manufacturing	
Other Chemical Product and Preparation Manufacturing	
Basic Chemical Manufacturing	
Sap, Cleaning Compound, and Toilet Preparation Manufacturing	
Converted Paper Product Manufacturing	
Petroleum and Coal Products Manufacturing	
Paint, Coating, and Adhesive Manufacturing	
COMMUNICATION, PUBLISHING AND BROADCASTING	
Wired Telecommunications Carriers	
Internet Service Providers and Web Search Portals	
Software Publishers	
Radio and Television Broadcasting	
Internet Publishing and Broadcasting	
Cable and Other Program Distribution	
Telecommunications Resellers	
Cable and Other Subscription Programming	
Wireless Telecommunications Carriers (except Satellite)	
Other Information Services	
Satellite Telecommunications	
Other Telecommunications	
ENTERTAINMENT	
Motion Picture and Video Industries	
Promoters of Performing Arts, Sports, and Similar Events	
Spectator Sports	
Agents and Managers for Artists, Athletes, Entertainers, and Other Public Figure	
Independent Artists, Writers, and Performers	
FINANCE AND INSURANCE	
Nonddepository Credit Intermediation	
Depository Credit Intermediation	
Insurance Carriers	
Agencies, Brokerages, and Other Insurance Related Activities	
Activities Related to Credit Intermediation	
Other Financial Investment Activities	

Existing Clusters, Industry List: Northern Virginia (continued)	
FINANCE AND INSURANCE (continued)	
Securities and Commodity Contracts Intermediation and Brokerage	
Insurance and Employee Benefit Funds	
Other Investment Pools and Funds	
Monetary Authorities - Central Bank	
FOOD PROCESSING	
Beverage Manufacturing	
Fruit and Vegetable Preserving and Specialty Food Manufacturing	
Other Food Manufacturing	
Grain and Oilseed Milling	
HEALTH CARE	
General Medical and Surgical Hospitals	
Nursing Care Facilities	
Community Care Facilities for the Elderly	
Outpatient Care Centers	
Home Health Care Services	
Medical and Diagnostic Laboratories	
Residential Mental Retardation, Mental Health and Substance Abuse Facilities	
Psychiatric and Substance Abuse Hospitals	
Other Ambulatory Health Care Services	
Other Residential Care Facilities	
Specialty (except Psychiatric and Substance Abuse) Hospitals	
INFORMATION TECHNOLOGY AND PROFESSIONAL SERVICES	
Computer Systems Design and Related Services	
Architectural, Engineering, and Related Services	
Accounting, Tax Preparation, Bookkeeping, and Payroll Services	
Scientific Research and Development Services	
Data Processing, Hosting, and Related Services	
Other Professional, Scientific, and Technical Services	
Specialized Design Services	
MACHINERY & EQUIPMENT MANUFACTURING	
Aerospace Product and Parts Manufacturing	

Existing Clusters, Industry List: Northern Virginia (continued)

MACHINERY & EQUIPMENT MANUFACTURING (continued)
Other General Purpose Machinery Manufacturing
Agriculture, Construction, and Mining Machinery Manufacturing
Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing
TEXTILES & APPAREL
Textile Furnishings Mills
Cut and Sew Apparel Manufacturing
Textile and Fabric Finishing and Fabric Coating Mills
Other Textile Product Mills
Apparel Accessories and Other Apparel Manufacturing
Other Leather and Allied Product Manufacturing
WOOD PRODUCT & FURNITURE MANUFACTURING
Other Wood Product Manufacturing
Household and Institutional Furniture and Kitchen Cabinet Manufacturing
Office Furniture (including Fixtures) Manufacturing
Veneer, Plywood, and Engineered Wood Product Manufacturing
Sawmills and Wood Preservation
Other Furniture Related Product Manufacturing

Emerging Clusters, Industry List: Northern Virginia

AGRICULTURE, FORESTRY, AND FISHING
Greenhouse, Nursery, and Floriculture Production
Support Activities for Animal Production
Vegetable and Melon Farming
Support Activities for Forestry
ELECTRONICS EQUIPMENT & INSTRUMENTS MANUFACTURING
Communications Equipment Manufacturing
Semiconductor and Other Electronic Component Manufacturing
Audio and Video Equipment Manufacturing
MEDICAL RELATED PRODUCTS MANUFACTURING
Other Miscellaneous Manufacturing
Medical Equipment and Supplies Manufacturing

Top 25 Skills-Based Industry Targets for Northern Virginia's Displaced Workers

The table below displays the top 25 skills-based industry recruitment targets* for Northern Virginia, based on a comparison of the skills inherent to the region's displaced workers and the skill requirements of individual industries.

Rank	Industry Title
1	Electrical and Electronic Goods Merchant Wholesalers
2	Other Motor Vehicle Dealers
3	Professional and Commercial Equipment and Supplies Merchant Wholesalers
4	Promoters of Performing Arts, Sports, and Similar Events
5	Machinery, Equipment, and Supplies Merchant Wholesalers
6	Chemical and Allied Products Merchant Wholesalers
7	Apparel, Piece Goods, and Notions Merchant Wholesalers
8	Hardware, and Plumbing and Heating Equipment and Supplies Merchant Wholesalers
9	Paper and Paper Product Merchant Wholesalers
10	Spectator Sports
11	Wholesale Electronic Markets and Agents and Brokers
12	Furniture and Home Furnishing Merchant Wholesalers
13	Gambling Industries
14	Drugs and Druggists' Sundries Merchant Wholesalers
15	Other Support Services
16	Consumer Goods Rental
17	Manufacturing and Reproducing Magnetic and Optical Media
18	Community Care Facilities for the Elderly
19	Telecommunications Resellers
20	Motor Vehicle and Motor Vehicle Parts and Supplies Merchant Wholesalers
21	Miscellaneous Nondurable Goods Merchant Wholesalers
22	Cable and Other Subscription Programming
23	Freight Transportation Arrangement
24	State Government (OES designation)
25	Business Support Services

*A total of 295 industries were ranked.

Rappahannock Region Existing Industry Clusters

(ranked by 2004 employment)

HEALTH CARE
AGRICULTURE, FORESTRY, AND FISHING*
WOOD PRODUCT MANUFACTURING
METALS AND RELATED MANUFACTURING
ELECTRONICS EQUIPMENT & INSTRUMENTS MANUFACTURING
MINING*
TEXTILES & APPAREL*

* These clusters have low growth potential and therefore would not be considered as "target" clusters, although individual industries may have good growth potential.

Rappahannock Region Emerging Industry Clusters

(ranked by 2004 employment)

INFORMATION TECHNOLOGY AND PROFESSIONAL SERVICES
FOOD PROCESSING*
FINANCE AND INSURANCE
MEDICAL RELATED PRODUCTS MANUFACTURING*

Top 25 Occupations for Existing Industry Clusters

	Estimated Employment 2004 q4
Nursing Aides, Orderlies, and Attendants	558
Registered Nurses	504
Farmworkers and Laborers, Crop, Nursery, and Greenhouse	270
Team Assemblers	221
Licensed Practical and Licensed Vocational Nurses	216
Office Clerks, General	176
Woodworking Machine Setters, Operators, and Tenders, Except Sawing	148
Laborers and Freight, Stock, and Material Movers, Hand	147
Home Health Aides	135
Maids and Housekeeping Cleaners	126
General and Operations Managers	123
Maintenance and Repair Workers, General	119
First-Line Supervisors/Managers of Production and Operating	116
Accountants and Auditors	113
Nonfarm Animal Caretakers	113
Farm, Ranch, and Other Agricultural Managers	106
Inspectors, Testers, Sorters, Samplers, and Weighers	98
Bookkeeping, Accounting, and Auditing Clerks	98
Farmworkers, Farm and Ranch Animals	94
Computer Programmers	93
Customer Service Representatives	93
Cabinetmakers and Bench Carpenters	93
Industrial Truck and Tractor Operators	92
Secretaries, Except Legal, Medical, and Executive	88
Assemblers and Fabricators, All Other	84

Top 25 Occupations for Emerging Industry Clusters

	Estimated Employment 2004 q4
Accountants and Auditors	92
Computer Programmers	91
Customer Service Representatives	63
Office Clerks, General	60
Computer Support Specialists	55
Veterinary Assistants and Laboratory Animal Caretakers	53
General and Operations Managers	52
Computer Systems Analysts	51
Nonfarm Animal Caretakers	44
Bookkeeping, Accounting, and Auditing Clerks	44
Receptionists and Information Clerks	42
Management Analysts	42
Network and Computer Systems Administrators	38
Veterinarians	35
Computer and Information Systems Managers	35
Packaging and Filling Machine Operators and Tenders	32
First-Line Supervisors/Managers of Office and Administrative	31
Executive Secretaries and Administrative Assistants	31
Secretaries, Except Legal, Medical, and Executive	29
Data Entry Keyers	28
Veterinary Technologists and Technicians	26
Inspectors, Testers, Sorters, Samplers, and Weighers	26
Photographers	25
Tax Preparers	25
Civil Engineers	23

Existing Clusters, Industry List: Rappahannock Region	
AGRICULTURE, FORESTRY, AND FISHING	Cattle Ranching and Farming Other Animal Production Support Activities for Animal Production Support Activities for Forestry Support Activities for Crop Production Animal Aquaculture
ELECTRONICS EQUIPMENT & INSTRUMENTS MANUFACTURING	Other Electrical Equipment and Component Manufacturing Aerospace Product and Parts Manufacturing Navigational, Measuring, Electromedical, and Control Instruments Manufacturing Communications Equipment Manufacturing
HEALTH CARE	General Medical and Surgical Hospitals Nursing Care Facilities Community Care Facilities for the Elderly Residential Mental Retardation, Mental Health and Substance Abuse Facilities Other Residential Care Facilities
METALS AND RELATED MANUFACTURING	Motor Vehicle Parts Manufacturing Cutlery and Handtool Manufacturing Cement and Concrete Product Manufacturing
MINING	Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing Foundries Other Fabricated Metal Product Manufacturing Steel Product Manufacturing from Purchased Steel Coating, Engraving, Heat Treating, and Allied Activities Architectural and Structural Metals Manufacturing
Emerging Clusters, Industry List: Rappahannock Region	
TEXTILES & APPAREL	Textile and Fabric Finishing and Fabric Coating Mills Cut and Sew Apparel Manufacturing Textile Furnishings Mills
WOOD PRODUCT & FURNITURE MANUFACTURING	Household and Institutional Furniture and Kitchen Cabinet Manufacturing Sawmills and Wood Preservation Other Wood Product Manufacturing
FINANCE AND INSURANCE	Insurance Carriers Other Investment Pools and Funds
FOOD PROCESSING	Beverage Manufacturing Bakeries and Tortilla Manufacturing
INFORMATION TECHNOLOGY AND PROFESSIONAL SERVICES	Data Processing, Hosting, and Related Services Other Professional, Scientific, and Technical Services Architectural, Engineering, and Related Services Accounting, Tax Preparation, Bookkeeping, and Payroll Services Scientific Research and Development Services
MEDICAL RELATED PRODUCTS MANUFACTURING	Manufacturing and Reproducing Magnetic and Optical Media Other Miscellaneous Manufacturing Medical Equipment and Supplies Manufacturing

Top 25 Skills-Based Industry Targets for Rappahannock Region's Displaced Workers

The table below displays the top 25 skills-based industry recruitment targets* for Rappahannock Region, based on a comparison of the skills inherent to the region's displaced workers and the skill requirements of individual industries.

Rank	Industry Title
1	Computer Systems Design and Related Services
2	Software Publishers
3	Data Processing, Hosting, and Related Services
4	Internet Service Providers and Web Search Portals
5	Internet Publishing and Broadcasting
6	Computer and Peripheral Equipment Manufacturing
7	Manufacturing and Reproducing Magnetic and Optical Media
8	Scientific Research and Development Services
9	Other Telecommunications
10	Professional and Commercial Equipment and Supplies Merchant Wholesalers
11	Navigational, Measuring, Electromedical, and Control Instruments Manufacturing
12	Communications Equipment Manufacturing
13	Securities and Commodity Exchanges
14	Monetary Authorities - Central Bank
15	Federal Executive Branch and United States Postal Service (OES designation)
16	Semiconductor and Other Electronic Component Manufacturing
17	Commercial and Service Industry Machinery Manufacturing
18	Aerospace Product and Parts Manufacturing
19	Management of Companies and Enterprises
20	Management, Scientific, and Technical Consulting Services
21	Pharmaceutical and Medicine Manufacturing
22	Electric Power Generation, Transmission and Distribution
23	Telecommunications Resellers
24	Basic Chemical Manufacturing
25	Satellite Telecommunications

*A total of 295 industries were ranked.

Greater Charlottesville Existing Industry Clusters

(ranked by 2004 employment)

INFORMATION TECHNOLOGY AND PROFESSIONAL SERVICES
HEALTH CARE
ELECTRONICS EQUIPMENT & INSTRUMENTS MANUFACTURING
COMMUNICATION & ENTERTAINMENT
WOOD PRODUCT MANUFACTURING
AGRICULTURE, FORESTRY, AND FISHING*
TEXTILES & APPAREL*

Top 25 Occupations for Existing Industry Clusters

	Estimated Employment 2004 q4	
Registered Nurses	2,646	Estimated Employment 2004 q4
Nursing Aides, Orderlies, and Attendants	1,205	Estimated Employment 2004 q4
Licensed Practical and Licensed Vocational Nurses	674	Estimated Employment 2004 q4
Office Clerks, General	582	Estimated Employment 2004 q4
Team Assemblers	411	Estimated Employment 2004 q4
Home Health Aides	333	Estimated Employment 2004 q4
Maids and Housekeeping Cleaners	320	Estimated Employment 2004 q4
Secretaries, Except Legal, Medical, and Executive	295	Estimated Employment 2004 q4
Farmworkers and Laborers, Crop, Nursery, and Greenhouse	283	Estimated Employment 2004 q4
Customer Service Representatives	275	Estimated Employment 2004 q4
General and Operations Managers	266	Estimated Employment 2004 q4
Electrical and Electronic Equipment Assemblers	248	Estimated Employment 2004 q4
Computer Software Engineers, Applications	224	Estimated Employment 2004 q4
Radiologic Technologists and Technicians	211	Estimated Employment 2004 q4
First-Line Supervisors/Managers of Office and Administrative	206	Estimated Employment 2004 q4
Bookkeeping, Accounting, and Auditing Clerks	200	Estimated Employment 2004 q4
Management Analysts	200	Estimated Employment 2004 q4
Executive Secretaries and Administrative Assistants	193	Estimated Employment 2004 q4
Interviewers, Except Eligibility and Loan	191	Estimated Employment 2004 q4
Insurance Sales Agents	190	Estimated Employment 2004 q4
Receptionists and Information Clerks	182	Estimated Employment 2004 q4
Editors	181	Estimated Employment 2004 q4
Personal and Home Care Aides	177	Estimated Employment 2004 q4
Laborers and Freight, Stock, and Material Movers, Hand	176	Estimated Employment 2004 q4
Business Operations Specialists, All Other	170	Estimated Employment 2004 q4

* These clusters have low growth potential and therefore would not be considered as "target" clusters, although individual industries may have good growth potential.

Greater Charlottesville Emerging Industry Clusters

(ranked by 2004 employment)

FINANCE AND INSURANCE
CHEMICALS & MATERIALS*
METALS AND RELATED MANUFACTURING
TEXTILES & APPAREL*

	Estimated Employment 2004 q4
Insurance Sales Agents	190
Customer Service Representatives	117
Office Clerks, General	62
Claims Adjusters, Examiners, and Investigators	62
Securities, Commodities, and Financial Services Sales Agents	51
Insurance Underwriters	49
First-Line Supervisors/Managers of Office and Administrative	34
Executive Secretaries and Administrative Assistants	29
Bookkeeping, Accounting, and Auditing Clerks	28
Personal Financial Advisors	26
Secretaries, Except Legal, Medical, and Executive	22
General and Operations Managers	20
Computer Systems Analysts	19
Accountants and Auditors	18
Business Operations Specialists, All Other	17
Brokerage Clerks	15
Tellers	15
Financial Analysts	14
Loan Officers	12
Receptionists and Information Clerks	12
Financial Managers	11
Health Professionals and Technicians, All Other (OES Only)	9
Title Examiners, Abstractors, and Searchers	9
Registered Nurses	8
First-Line Supervisors/Managers of Non-Retail Sales Workers	8

Existing Clusters, Industry List: Greater Charlottesville

AGRICULTURE, FORESTRY, AND FISHING	
Fruit and Tree Nut Farming	
Logging	
Other Animal Production	
Greenhouse, Nursery, and Floriculture Production	
Cattle Ranching and Farming	
Support Activities for Animal Production	
Support Activities for Crop Production	
Support Activities for Forestry	
Other Crop Farming	
Timber Tract Operations	
Vegetable and Melon Farming	
COMMUNICATION & ENTERTAINMENT	
Newspaper, Periodical, Book, and Directory Publishers	
Radio and Television Broadcasting	
Software Publishers	
Independent Artists, Writers, and Performers	
Agents and Managers for Artists, Athletes, Entertainers, and Other Public Figure	
Sound Recording Industries	
Promoters of Performing Arts, Sports, and Similar Events	
ELECTRONICS EQUIPMENT & INSTRUMENTS MANUFACTURING	
Navigational, Measuring, Electromedical, and Control Instruments Manufacturing	
Semiconductor and Other Electronic Component Manufacturing	
Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing	
Industrial Machinery Manufacturing	
Communications Equipment Manufacturing	
HEALTH CARE	
General Medical and Surgical Hospitals	
Outpatient Care Centers	
Nursing Care Facilities	
Home Health Care Services	

Existing Clusters, Industry List: Greater Charlottesville (continued)	
HEALTH CARE (continued)	
Community Care Facilities for the Elderly	
Specialty (except Psychiatric and Substance Abuse) Hospitals	
Other Ambulatory Health Care Services	
Residential Mental Retardation, Mental Health and Substance Abuse Facilities	
Other Residential Care Facilities	
Medical and Diagnostic Laboratories	
INFORMATION TECHNOLOGY AND PROFESSIONAL SERVICES	
Computer Systems Design and Related Services	
Scientific Research and Development Services	
TEXTILES & APPAREL	
Other Textile Product Mills	
Cut and Sew Apparel Manufacturing	
Apparel Accessories and Other Apparel Manufacturing	
Textile Furnishings Mills	
WOOD PRODUCT & FURNITURE MANUFACTURING	
Household and Institutional Furniture and Kitchen Cabinet Manufacturing	
Sawmills and Wood Preservation	
Other Wood Product Manufacturing	
Veneer, Plywood, and Engineered Wood Product Manufacturing	

Emerging Clusters, Industry List: Greater Charlottesville	
CHEMICALS & MATERIALS	
Other Nonmetallic Mineral Product Manufacturing	
Other Chemical Product and Preparation Manufacturing	
Clay Product and Refractory Manufacturing	
FINANCE AND INSURANCE	
Agencies, Brokerages, and Other Insurance Related Activities	
Insurance Carriers	
Other Financial Investment Activities	
Activities Related to Credit Intermediation	
Other Investment Pools and Funds	
METALS AND RELATED MANUFACTURING	
Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	
Agriculture, Construction, and Mining Machinery Manufacturing	
Metalworking Machinery Manufacturing	

Top 25 Skills-Based Industry Targets for Greater Charlottesville's Displaced Workers

The table below displays the top 25 skills-based industry recruitment targets* for Greater Charlottesville, based on a comparison of the skills inherent to the region's displaced workers and the skill requirements of individual industries.

Rank	Industry Title
1	Lawn and Garden Equipment and Supplies Stores
2	Grocery and Related Product Wholesalers
3	Miscellaneous Nondurable Goods Merchant Wholesalers
4	Petroleum and Petroleum Products Merchant Wholesalers
5	Miscellaneous Durable Goods Merchant Wholesalers
6	Chemical and Allied Products Merchant Wholesalers
7	Beer, Wine, and Distilled Alcoholic Beverage Merchant Wholesalers
8	Furniture Stores
9	Automotive Parts, Accessories, and Tire Stores
10	Apparel, Piece Goods, and Notions Merchant Wholesalers
11	Motor Vehicle and Motor Vehicle Parts and Supplies Merchant Wholesalers
12	Other Motor Vehicle Dealers
13	Drugs and Druggists' Sundries Merchant Wholesalers
14	Other Furniture Related Product Manufacturing
15	Lumber and Other Construction Materials Merchant Wholesalers
16	Metal and Mineral (except Petroleum) Merchant Wholesalers
17	Furniture and Home Furnishing Merchant Wholesalers
18	Hardware, and Plumbing and Heating Equipment and Supplies Merchant Wholesalers
19	Manufacturing and Reproducing Magnetic and Optical Media
20	Electrical and Electronic Goods Merchant Wholesalers
21	Professional and Commercial Equipment and Supplies Merchant Wholesalers
22	Other Miscellaneous Manufacturing
23	Specialty Food Stores
24	Paper and Paper Product Merchant Wholesalers
25	Electronics and Appliance Stores

* A total of 295 industries were ranked.

Region 2000 Existing Industry Clusters (ranked by 2004 employment)	
METALS AND RELATED MANUFACTURING	ELECTRONICS EQUIPMENT & INSTRUMENTS MFG
HEALTH CARE	AGRICULTURE, FORESTRY, AND FISHING*
WOOD PRODUCT MANUFACTURING	
DISTRIBUTION & WAREHOUSING	
FOOD PROCESSING*	
CHEMICALS & MATERIALS*	
TEXTILES & APPAREL*	

* These clusters have low growth potential and therefore would not be considered as "target" clusters, although individual industries may have good growth potential.

Top 25 Occupations for Existing Industry Clusters	
	Estimated Employment 2004 q4
Nursing Aides, Orderlies, and Attendants	1,591
Registered Nurses	1,494
Team Assemblers	1,057
Truck Drivers, Heavy and Tractor-Trailer	964
Laborers and Freight, Stock, and Material Movers, Hand	651
Licensed Practical and Licensed Vocational Nurses	637
Machinists	609
Office Clerks, General	595
First-Line Supervisors/Managers of Production and Operating Workers	586
Welders, Cutters, Solderers, and Brazers	513
Maintenance and Repair Workers, General	492
Inspectors, Testers, Sorters, Samplers, and Weighers	472
General and Operations Managers	445
Home Health Aides	389
Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic	387
Maids and Housekeeping Cleaners	354
Industrial Truck and Tractor Operators	352
Bookkeeping, Accounting, and Auditing Clerks	352
Helpers-Production Workers	328
Assemblers and Fabricators, All Other	316
Secretaries, Except Legal, Medical, and Executive	295
Shipping, Receiving, and Traffic Clerks	288
Truck Drivers, Light or Delivery Services	286
Woodworking Machine Setters, Operators, and Tenders, Except Sawing	280
Structural Metal Fabricators and Fitters	266

Region 2000 Emerging Industry Clusters (ranked by 2004 employment)	
INFORMATION TECHNOLOGY AND PROFESSIONAL SERVICES	
FINANCE AND INSURANCE	
AUTOMOTIVE MANUFACTURING*	
COMMUNICATION & ENTERTAINMENT	
MEDICAL RELATED PRODUCTS MANUFACTURING	

Existing Clusters, Industry List: Region 2000

Existing Clusters, Industry List: Region 2000 (continued)

AGRICULTURE, FORESTRY, AND FISHING	
Logging	
Cattle Ranching and Farming	
Support Activities for Animal Production	
Greenhouse, Nursery, and Floriculture Production	
CHEMICALS & MATERIALS	
Rubber Product Manufacturing	
Paint, Coating, and Adhesive Manufacturing	
Other Chemical Product and Preparation Manufacturing	
DISTRIBUTION & WAREHOUSING	
General Freight Trucking	
Automotive Repair and Maintenance	
Specialized Freight Trucking	
Warehousing and Storage	
Automotive Equipment Rental and Leasing	
Support Activities for Rail Transportation	
Freight Transportation Arrangement	
Scenic and Sightseeing Transportation, Water	
Support Activities for Air Transportation	
ELECTRONICS EQUIPMENT & INSTRUMENTS MANUFACTURING	
Semiconductor and Other Electronic Component Manufacturing	
Communications Equipment Manufacturing	
Navigational, Measuring, Electromedical, and Control Instruments Manufacturing	
FOOD PROCESSING	
Animal Slaughtering and Processing	
Animal Food Manufacturing	
HEALTH CARE	
General Medical and Surgical Hospitals	
Nursing Care Facilities	
HEALTH CARE (continued)	
Community Care Facilities for the Elderly	
Residential Mental Retardation, Mental Health and Substance Abuse Facilities	
Outpatient Care Centers	
Other Residential Care Facilities	
Medical and Diagnostic Laboratories	
Other Ambulatory Health Care Services	
METALS AND RELATED MANUFACTURING	
Architectural and Structural Metals Manufacturing	
Boiler, Tank, and Shipping Container Manufacturing	
Other General Purpose Machinery Manufacturing	
Foundries	
Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	
Other Fabricated Metal Product Manufacturing	
Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing	
Metalworking Machinery Manufacturing	
Industrial Machinery Manufacturing	
TEXTILES & APPAREL	
Fabric Mills	
Textile and Fabric Finishing and Fabric Coating Mills	
Cut and Sew Apparel Manufacturing	
WOOD PRODUCT & FURNITURE MANUFACTURING	
Household and Institutional Furniture and Kitchen Cabinet Manufacturing	
Pulp, Paper, and Paperboard Mills	
Sawmills and Wood Preservation	
Other Wood Product Manufacturing	
Office Furniture (including Fixtures) Manufacturing	
Veneer, Plywood, and Engineered Wood Product Manufacturing	

Emerging Clusters, Industry List: Region 2000	
AUTOMOTIVE MANUFACTURING	Electric Lighting Equipment Manufacturing
	Motor Vehicle Body and Trailer Manufacturing
	Motor Vehicle Parts Manufacturing
COMMUNICATION & ENTERTAINMENT	Radio and Television Broadcasting
	Spectator Sports
FINANCE AND INSURANCE	Nondepository Credit Intermediation
	Activities Related to Credit Intermediation
	Securities and Commodity Contracts Intermediation and Brokerage
	Other Financial Investment Activities
INFORMATION TECHNOLOGY AND PROF. SERVICES	Data Processing, Hosting, and Related Services
	Accounting, Tax Preparation, Bookkeeping, and Payroll Services
	Architectural, Engineering, and Related Services
	Computer Systems Design and Related Services
MEDICAL RELATED PRODUCTS MANUFACTURING	Medical Equipment and Supplies Manufacturing
	Other Miscellaneous Manufacturing

Top 25 Skills-Based Industry Targets for Region 2000's Displaced Workers

The table below displays the top 25 skills-based industry recruitment targets* for Region 2000, based on a comparison of the skills inherent to the region's displaced workers and the skill requirements of individual industries.

Rank	Industry Title
1	Audio and Video Equipment Manufacturing
2	Communications Equipment Manufacturing
3	Electrical Equipment Manufacturing
4	Semiconductor and Other Electronic Component Mfg.
5	Electric Lighting Equipment Manufacturing
6	Other Electrical Equipment and Component Manufacturing
7	Computer and Peripheral Equipment Manufacturing
8	Navigational, Measuring, Electromedical, and Control Instruments Manufacturing
9	Satellite Telecommunications
10	Motor Vehicle Manufacturing
11	Electronic and Precision Equipment Repair and Maintenance
12	Commercial and Service Industry Machinery Manufacturing
13	Manufacturing and Reproducing Magnetic and Optical Media
14	Household Appliance Manufacturing
15	Medical Equipment and Supplies Manufacturing
16	Other Support Services
17	Railroad Rolling Stock Manufacturing
18	Motor Vehicle Parts Manufacturing
19	Glass and Glass Product Manufacturing
20	Electrical and Electronic Goods Merchant Wholesalers
21	Other General Purpose Machinery Manufacturing
22	Other Miscellaneous Manufacturing
23	Other Chemical Product and Preparation Manufacturing
24	Apparel, Piece Goods, and Notions Merchant Wholesalers
25	Textile and Fabric Finishing and Fabric Coating Mills

*A total of 295 industries were ranked.

Southside Virginia Existing Industry Clusters

(ranked by 2004 employment)

WOOD PRODUCT MANUFACTURING	AGRICULTURE, FORESTRY, AND FISHING*
TEXTILES & APPAREL*	AUTOMOTIVE MANUFACTURING*
HEALTH CARE	COMMUNICATION & ENTERTAINMENT
CHEMICALS & MATERIALS*	NONMETALLIC MINERALS & RELATED PRODUCTS*
DISTRIBUTION & WAREHOUSING	
TOBACCO MANUFACTURING*	
FOOD PROCESSING*	

* These clusters have low growth potential and therefore would not be considered as "target" clusters, although individual industries may have good growth potential.

Southside Virginia Emerging Industry Clusters

(ranked by 2004 employment)

INFORMATION TECHNOLOGY AND PROFESSIONAL SERVICES
PRINTING & PAPER PRODUCTS MANUFACTURING*
FINANCE AND INSURANCE
METALS AND RELATED MANUFACTURING
ELECTRONICS EQUIPMENT & INSTRUMENTS MANUFACTURING

* These clusters have low growth potential and therefore would not be considered as "target" clusters, although individual industries may have good growth potential.

Top 25 Occupations for Existing Industry Clusters

	Estimated Employment 2004 q4
Laborers and Freight, Stock, and Material Movers, Hand	1,169
Registered Nurses	1,072
Team Assemblers	1,066
First-Line Supervisors/Managers of Production and Operating Workers	897
Nursing Aides, Orderlies, and Attendants	877
Woodworking Machine Setters, Operators, and Tenders, Except Sawing	803
Truck Drivers, Heavy and Tractor-Trailer	771
Inspectors, Testers, Sorters, Samplers, and Weighers	759
Industrial Truck and Tractor Operators	712
Sewing Machine Operators	699
Office Clerks, General	573
Maintenance and Repair Workers, General	550
Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders	512
Helpers--Production Workers	509
Cabinetmakers and Bench Carpenters	507
Packers and Packagers, Hand	462
Industrial Knitting and Weaving Machine Setters, Operators, and Tenders	429
General and Operations Managers	403
Licensed Practical and Licensed Vocational Nurses	397
Customer Service Representatives	396
Extruding and Forming Machine Setters, Operators, and Tenders, Synthetic/Glass Fiber	385
Shipping, Receiving, and Traffic Clerks	357
Paper Goods Machine Setters, Operators, and Tenders	320
Machine Feeders and Offloaders	305
Inspectors, Testers, Sorters, Samplers, and Weighers	300

Top 25 Occupations for Emerging Industry Clusters

	Estimated Employment 2004 q4
Paper Goods Machine Setters, Operators, and Tenders	300
Customer Service Representatives	185
Accountants and Auditors	134
Office Clerks, General	125
Team Assemblers	109
Lawyers	107
Bookkeeping, Accounting, and Auditing Clerks	96
First-Line Supervisors/Managers of Production and Operating	92
Tellers	87
First-Line Supervisors/Managers of Office and Administrative	87
Maintenance and Repair Workers, General	85
Insurance Sales Agents	80
Industrial Machinery Mechanics	73
Electrical and Electronic Equipment Assemblers	73
Telemarketers	70
General and Operations Managers	67
Industrial Truck and Tractor Operators	65
Helpers--Production Workers	60
Loan Officers	60
Machinists	55
Computer Programmers	55
Laborers and Freight, Stock, and Material Movers, Hand	55
Paralegals and Legal Assistants	53
Bill and Account Collectors	51
Inspectors, Testers, Sorters, Samplers, and Weighers	49

Existing Clusters, Industry List: Southside Virginia

AGRICULTURE, FORESTRY, AND FISHING
Hunting and Trapping
Support Activities for Forestry
Timber Tract Operations
Support Activities for Animal Production
AUTOMOTIVE MANUFACTURING
Motor Vehicle Parts Manufacturing
Motor Vehicle Manufacturing
Industrial Machinery Manufacturing
CHEMICALS & MATERIALS
Rubber Product Manufacturing
Resin, Synthetic Rubber, and Artificial Synthetic Fibers and Filaments Manufacturing
COMMUNICATION & ENTERTAINMENT
Radio and Television Broadcasting
Cable and Other Subscription Programming
DISTRIBUTION & WAREHOUSING
Warehousing and Storage
General Freight Trucking
Specialized Freight Trucking
Automotive Equipment Rental and Leasing
Other Support Activities for Transportation
Support Activities for Road Transportation
FOOD PROCESSING
Other Food Manufacturing
Beverage Manufacturing
Sugar and Confectionery Product Manufacturing
HEALTH CARE
General Medical and Surgical Hospitals
Nursing Care Facilities
Community Care Facilities for the Elderly
Home Health Care Services

Existing Clusters, Industry List: Southside Virginia (continued)

HEALTH CARE (continued)
Outpatient Care Centers
Other Ambulatory Health Care Services
Other Residential Care Facilities
Residential Mental Retardation, Mental Health and Substance Abuse Facilities
NONMETALLIC MINERALS & RELATED PRODUCTS
Nonmetallic Mineral Mining and Quarrying
Support Activities for Mining
TEXTILES & APPAREL
Fabric Mills
Textile and Fabric Finishing and Fabric Coating Mills
Textile Furnishings Mills
Other Textile Product Mills
Cut and Sew Apparel Manufacturing
Apparel Knitting Mills
TOBACCO MANUFACTURING
Tobacco Manufacturing
Printing and Related Support Activities
WOOD PRODUCT & FURNITURE MANUFACTURING
Household and Institutional Furniture and Kitchen Cabinet Manufacturing
Other Wood Product Manufacturing
Veneer, Plywood, and Engineered Wood Product Manufacturing
Sawmills and Wood Preservation
Office Furniture (including Fixtures) Manufacturing

Emerging Clusters, Industry List: Southside Virginia	
ELECTRONICS EQUIPMENT & INSTRUMENTS MANUFACTURING	
Other Electrical Equipment and Component Manufacturing	
Navigational, Measuring, Electromedical, and Control Instruments Manufacturing	
Aerospace Product and Parts Manufacturing	
FINANCE AND INSURANCE	
Nondepositary Credit Intermediation	
Agencies, Brokerages, and Other Insurance Related Activities	
Other Financial Investment Activities	
INFORMATION TECHNOLOGY AND PROFESSIONAL SERVICES	
Accounting, Tax Preparation, Bookkeeping, and Payroll Services	
Legal Services	
Data Processing, Hosting, and Related Services	
Business Support Services	
Other Professional, Scientific, and Technical Services	
Computer Systems Design and Related Services	
METALS AND RELATED MANUFACTURING	
Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	
Electrical Equipment Manufacturing	
Foundries	
Other Fabricated Metal Product Manufacturing	
Architectural and Structural Metals Manufacturing	
Other General Purpose Machinery Manufacturing	
Cutlery and Handtool Manufacturing	
Coating, Engraving, Heat Treating, and Allied Activities	
PRINTING & PAPER PRODUCTS MANUFACTURING	
Converted Paper Product Manufacturing	
Pulp, Paper, and Paperboard Mills	

Top 25 Skills-Based Industry Targets for Southside Virginia's Displaced Workers

The table below displays the top 25 skills-based industry recruitment targets* for Southside Virginia, based on a comparison of the skills inherent to the region's displaced workers and the skill requirements of individual industries.

Rank	Industry Title
1	Apparel/Knitting Mills
2	Textile Furnishings Mills
3	Textile and Fabric Finishing and Fabric Coating Mills
4	Support Activities for Air Transportation
5	Railroad Rolling Stock Manufacturing
6	Glass and Glass Product Manufacturing
7	Pipeline Transportation of Natural Gas
8	Support Activities for Rail Transportation
9	Electric Power Generation, Transmission and Distribution
10	Tobacco Manufacturing
11	Natural Gas Distribution
12	Boiler, Tank, and Shipping Container Manufacturing
13	Motor Vehicle Body and Trailer Manufacturing
14	Other Nonmetallic Mineral Product Manufacturing
15	Clay Product and Refractory Manufacturing
16	Lime and Gypsum Product Manufacturing
17	Fabric Mills
18	Agriculture, Construction, and Mining Machinery Manufacturing
19	Other Miscellaneous Manufacturing
20	Other Furniture Related Product Manufacturing
21	Animal Food Manufacturing
22	Dairy Product Manufacturing
23	Other Transportation Equipment Manufacturing
24	Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing
25	Ship and Boat Building

*A total of 295 industries were ranked.

Lake County Existing Industry Clusters

(ranked by 2004 employment)

HEALTH CARE
DISTRIBUTION & WAREHOUSING
TEXTILES & APPAREL*
WOOD PRODUCT MANUFACTURING
AGRICULTURE, FORESTRY, AND FISHING*
ELECTRONICS EQUIPMENT & INSTRUMENTS MANUFACTURING
METALS AND RELATED MANUFACTURING

* These clusters have low growth potential and therefore would not be considered as "target" clusters, although individual industries may have good growth potential.

Lake County Emerging Industry Clusters

(ranked by 2004 employment)

INFORMATION TECHNOLOGY AND PROFESSIONAL SERVICES
FOOD PROCESSING*
FINANCE AND INSURANCE

Top 25 Occupations for Existing Industry Clusters

	Estimated Employment 2004 q4
Laborers and Freight, Stock, and Material Movers, Hand	769
Truck Drivers, Heavy and Tractor-Trailer	534
Registered Nurses	485
Nursing Aides, Orderlies, and Attendants	358
Industrial Truck and Tractor Operators	279
Office Clerks, General	190
Logging Equipment Operators	173
Stock Clerks and Order Fillers	170
Licensed Practical and Licensed Vocational Nurses	166
Team Assemblers	162
Sewing Machine Operators	134
First-Line Supervisors/Managers of Production and Operating	123
Maintenance and Repair Workers, General	112
General and Operations Managers	110
Home Health Aides	109
Truck Drivers, Light or Delivery Services	104
Woodworking Machine Setters, Operators, and Tenders, Except Sawing	98
Bookkeeping, Accounting, and Auditing Clerks	97
Inspectors, Testers, Sorters, Samplers, and Weighers	86
First-Line Supervisors/Managers of Office and Administrative	86
Secretaries, Except Legal, Medical, and Executive	82
Maids and Housekeeping Cleaners	82
Fallers	81
Electrical and Electronic Equipment Assemblers	76
Customer Service Representatives	75

Top 25 Occupations for Emerging Industry Clusters

	Estimated Employment 2004 q4
Accountants and Auditors	47
Telemarketers	42
Meat, Poultry, and Fish Cutters and Trimmers	33
Customer Service Representatives	28
Office Clerks, General	23
Bill and Account Collectors	20
Bookkeeping, Accounting, and Auditing Clerks	20
Packaging and Filling Machine Operators and Tenders	19
Slaughterers and Meat Packers	17
Tax Preparers	17
Management Analysts	15
First-Line Supervisors/Managers of Office and Administrative	13
Secretaries, Except Legal, Medical, and Executive	12
Laborers and Freight, Stock, and Material Movers, Hand	12
General and Operations Managers	10
Veterinary Assistants and Laboratory Animal Caretakers	9
First-Line Supervisors/Managers of Production and Operating	9
Food Batchmakers	8
Receptionists and Information Clerks	8
Nonfarm Animal Caretakers	7
Industrial Truck and Tractor Operators	7
Inspectors, Testers, Sorters, Samplers, and Weighers	7
Executive Secretaries and Administrative Assistants	6
Maintenance and Repair Workers, General	6
Helpers—Production Workers	6

Existing Clusters, Industry List: Lake Country	
AGRICULTURE, FORESTRY, AND FISHING	
Logging	
Other Crop Farming	
Cattle Ranching and Farming	
Forest Nurseries and Gathering of Forest Products	
Support Activities for Forestry	
Hunting and Trapping	
Support Activities for Crop Production	
Oilseed and Grain Farming	
Timber Tract Operations	
DISTRIBUTION & WAREHOUSING	
Warehousing and Storage	
Specialized Freight Trucking	
General Freight Trucking	
Automotive Equipment Rental and Leasing	
ELECTRONICS EQUIPMENT & INSTRUMENTS MANUFACTURING	
Electrical Equipment Manufacturing	
Semiconductor and Other Electronic Component Manufacturing	
HEALTH CARE	
General Medical and Surgical Hospitals	
Nursing Care Facilities	
Community Care Facilities for the Elderly	
Home Health Care Services	
Residential Mental Retardation, Mental Health and Substance Abuse Facilities	
Outpatient Care Centers	
Other Ambulatory Health Care Services	
Medical and Diagnostic Laboratories	
METALS AND RELATED MANUFACTURING	
Spring and Wire Product Manufacturing	
Architectural and Structural Metals Manufacturing	
Iron and Steel Mills and Ferroalloy Manufacturing	

Existing Clusters, Industry List: Lake Country (continued)	
TEXTILES & APPAREL	
Textile Furnishings Mills	
Fiber, Yarn, and Thread Mills	
Fabric Mills	
Textile and Fabric Finishing and Fabric Coating Mills	
WOOD PRODUCT & FURNITURE MANUFACTURING	
Veneer, Plywood, and Engineered Wood Product Manufacturing	
Other Wood Product Manufacturing	
Sawmills and Wood Preservation	
Emerging Clusters, Industry List: Lake Country	
FINANCE AND INSURANCE	
Nondepository Credit Intermediation	
Other Financial Investment Activities	
FOOD PROCESSING	
Animal Food Manufacturing	
Beverage Manufacturing	
INFORMATION TECHNOLOGY AND PROFESSIONAL SERVICES	
Accounting, Tax Preparation, Bookkeeping, and Payroll Services	
Business Support Services	
Other Professional, Scientific, and Technical Services	
Management, Scientific, and Technical Consulting Services	

Top 25 Skills-Based Industry Targets for Lake Country's Displaced Workers

The table below displays the top 25 skills-based industry recruitment targets* for Lake Country, based on a comparison of the skills inherent to the region's displaced workers and the skill requirements of individual industries.

Rank	Industry Title
1	Department Stores
2	Clothing Stores
3	Other General Merchandise Stores
4	Drinking Places (Alcoholic Beverages)
5	Shoe Stores
6	Full-Service Restaurants
7	Interurban and Rural Bus Transportation
8	Book, Periodical, and Music Stores
9	Scenic and Sightseeing Transportation, Land
10	Sporting Goods, Hobby, and Musical Instrument Stores
11	Grocery Stores
12	Gasoline Stations
13	Charter Bus Industry
14	Jewelry, Luggage, and Leather Goods Stores
15	Beer, Wine, and Liquor Stores
16	Used Merchandise Stores
17	Limited-Service Eating Places
18	Taxi and Limousine Service
19	Urban Transit Systems
20	Office Supplies, Stationery, and Gift Stores
21	Other Miscellaneous Store Retailers
22	Home Furnishings Stores
23	Special Food Services
24	Building Material and Supplies Dealers
25	Scheduled Air Transportation

*A total of 295 industries were ranked.

Virginia's Heartland Existing Industry Clusters (ranked by 2004 employment)	
HEALTH CARE	
WOOD PRODUCT MANUFACTURING	
METALS AND RELATED MANUFACTURING	
TEXTILES & APPAREL*	
AGRICULTURE, FORESTRY, AND FISHING*	

* These clusters have low growth potential and therefore would not be considered as "target" clusters, although individual industries may have good growth potential.

Top 25 Occupations for Existing Industry Clusters	Estimated Employment 2004 q4
Nursing Aides, Orderlies, and Attendants	396
Registered Nurses	345
Team Assemblers	250
Logging Equipment Operators	165
Licensed Practical and Licensed Vocational Nurses	162
Laborers and Freight, Stock, and Material Movers, Hand	155
Woodworking Machine Setters, Operators, and Tenders, Except Sawing	151
First-Line Supervisors/Managers of Production and Operating	121
Office Clerks, General	112
Industrial Truck and Tractor Operators	108
Home Health Aides	100
Maintenance and Repair Workers, General	97
Inspectors, Testers, Sorters, Samplers, and Weighers	96
Truck Drivers, Heavy and Tractor-Trailer	90
Sawing Machine Setters, Operators, and Tenders, Wood	88
Maids and Housekeeping Cleaners	85
Carpenters	81
General and Operations Managers	78
Farmworkers and Laborers, Crop, Nursery, and Greenhouse	76
Fallers	76
Helpers-Production Workers	75
Secretaries, Except Legal, Medical, and Executive	72
Bookkeeping, Accounting, and Auditing Clerks	64
Sewing Machine Operators	61
Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, Tenders	61

Top 25 Occupations for Emerging Industry Clusters	Estimated Employment 2004 q4
Insurance Sales Agents	33
Accountants and Auditors	25
Customer Service Representatives	21
Office Clerks, General	20
Veterinary Assistants and Laboratory Animal Caretakers	16
Nonfarm Animal Caretakers	13
Receptionists and Information Clerks	13
Bookkeeping, Accounting, and Auditing Clerks	13
Claims Adjusters, Examiners, and Investigators	11
Veterinarians	10
Secretaries, Except Legal, Medical, and Executive	10
First-Line Supervisors/Managers of Office and Administrative	9
Insurance Underwriters	9
General and Operations Managers	8
Tax Preparers	8
Veterinary Technologists and Technicians	8
Photographers	7
Computer Systems Analysts	7
Executive Secretaries and Administrative Assistants	7
Management Analysts	7
Civil Engineers	6
Electrical Engineers	6
Business Operations Specialists, All Other	5
Computer Software Engineers, Applications	4
Registered Nurses	4

Existing Clusters, Industry List: Virginia's Heartland	
AGRICULTURE, FORESTRY, AND FISHING	
Logging	
Cattle Ranching and Farming	
Other Animal Production	
Other Crop Farming	
Support Activities for Forestry	
Support Activities for Crop Production	
Support Activities for Animal Production	
Timber Tract Operations	
HEALTH CARE	
Nursing Care Facilities	
General Medical and Surgical Hospitals	
Outpatient Care Centers	
Residential Mental Retardation, Mental Health and Substance Abuse Facilities	
Community Care Facilities for the Elderly	
Other Ambulatory Health Care Services	
Other Residential Care Facilities	
Medical and Diagnostic Laboratories	
METALS AND RELATED MANUFACTURING	
Plastics Product Manufacturing	
Other Electrical Equipment and Component Manufacturing	
Other Nonmetallic Mineral Product Manufacturing	
Cement and Concrete Product Manufacturing	
Architectural and Structural Metals Manufacturing	
Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	
Cutlery and Handtool Manufacturing	
Motor Vehicle Parts Manufacturing	
Metalworking Machinery Manufacturing	
TEXTILES & APPAREL	
Fabric Mills	
Cut and Sew Apparel Manufacturing	
Other Textile Product Mills	

Existing Clusters, Industry List: Virginia's Heartland (continued)

Existing Clusters, Industry List: Virginia's Heartland (continued)	
WOOD PRODUCT & FURNITURE MANUFACTURING	
Sawmills and Wood Preservation	
Other Wood Product Manufacturing	
Household and Institutional Furniture and Kitchen Cabinet Manufacturing	
Veneer, Plywood, and Engineered Wood Product Manufacturing	
Emerging Clusters, Industry List: Virginia's Heartland	
FINANCE AND INSURANCE	
Agencies, Brokerages, and Other Insurance Related Activities	
Securities and Commodity Contracts Intermediation and Brokerage	
INFORMATION TECHNOLOGY AND PROFESSIONAL SERVICES	
Other Professional, Scientific, and Technical Services	
Architectural, Engineering, and Related Services	
Accounting, Tax Preparation, Bookkeeping, and Payroll Services	
Computer Systems Design and Related Services	

Top 25 Skills-Based Industry Targets for Virginia's Heartland's Displaced Workers

The table below displays the top 25 skills-based industry recruitment targets* for Virginia's Heartland, based on a comparison of the skills inherent to the region's displaced workers and the skill requirements of individual industries.

Rank	Industry Title
1	School and Employee Bus Transportation
2	Services to Buildings and Dwellings
3	Support Activities for Crop Production
4	General Freight Trucking
5	Waste Collection
6	Specialized Freight Trucking
7	Couriers
8	Animal Slaughtering and Processing
9	Logging
10	Highway, Street, and Bridge Construction
11	Cut and Sew Apparel Manufacturing
12	Support Activities for Animal Production
13	Apparel Accessories and Other Apparel Manufacturing
14	Drycleaning and Laundry Services
15	Other Specialty Trade Contractors
16	Support Activities for Road Transportation
17	Household and Institutional Furniture and Kitchen Cabinet Manufacturing
18	Other Heavy and Civil Engineering Construction
19	Cement and Concrete Product Manufacturing
20	Remediation and Other Waste Management Services
21	Utility System Construction
22	Waste Treatment and Disposal
23	Sawmills and Wood Preservation
24	Building Finishing Contractors
25	Foundation, Structure, and Building Exterior Contractors

*A total of 295 industries were ranked.

Greater Richmond Existing Industry Clusters

(ranked by 2004 employment)

FINANCE AND INSURANCE	FOOD PROCESSING*
INFORMATION TECHNOLOGY AND PROFESSIONAL SERVICES	WOOD PRODUCT MANUFACTURING
HEALTH CARE	AUTOMOTIVE MANUFACTURING*
COMMUNICATION & ENTERTAINMENT	AGRICULTURE, FORESTRY, AND FISHING*
CHEMICALS & MATERIALS*	DISTRIBUTION & WAREHOUSING
ELECTRONICS EQUIPMENT & INSTRUMENTS MANUFACTURING	

* These clusters have low growth potential and therefore would not be considered as "target" clusters, although individual industries may have good growth potential.

Greater Richmond Emerging Industry Clusters

(ranked by 2004 employment)

MEDICAL RELATED PRODUCTS MANUFACTURING
METALS AND RELATED MANUFACTURING
AUTOMOTIVE MANUFACTURING*
AGRICULTURE, FORESTRY, AND FISHING*
DISTRIBUTION & WAREHOUSING
ELECTRONICS EQUIPMENT & INSTRUMENTS MANUFACTURING

* These clusters have low growth potential and therefore would not be considered as "target" clusters, although individual industries may have good growth potential.

Top 25 Occupations for Existing Industry Clusters

	Estimated Employment 2004 q4
Registered Nurses	8,020
Customer Service Representatives	5,121
Office Clerks, General	4,871
Nursing Aides, Orderlies, and Attendants	4,742
Truck Drivers, Heavy and Tractor-Trailer	3,315
Tellers	3,300
Insurance Sales Agents	3,259
Accountants and Auditors	2,886
First-Line Supervisors/Managers of Office and Admin.	2,780
Bookkeeping, Accounting, and Auditing Clerks	2,516
Licensed Practical and Licensed Vocational Nurses	2,398
General and Operations Managers	2,220
Loan Officers	2,216
Secretaries, Except Legal, Medical, and Executive	2,141
Executive Secretaries and Administrative Assistants	1,712
Computer Systems Analysts	1,665
Management Analysts	1,540
Home Health Aides	1,487
Computer Software Engineers, Systems Software	1,399
Computer Programmers	1,397
Securities, Commodities, and Financial Services Sales Agents	1,324
Business Operations Specialists, All Other	1,236
Computer Software Engineers, Applications	1,228
Computer Support Specialists	1,167
Receptionists and Information Clerks	1,129

Top 25 Occupations for Emerging Industry Clusters

	Estimated Employment 2004 q4
Team Assemblers	349
Machinists	175
First-Line Supervisors/Managers of Production & Operating	156
Weavers, Cutters, Solderers, and Brazers	142
Dental Laboratory Technicians	122
Inspectors, Testers, Sorters, Samplers, and Weighers	111
Assemblers and Fabricators, All Other	106
Extruding & Drawing Machine Setters, Operators, and Tenders	104
Cutting, Punching, and Press Machine Setters, Operators, and Tenders	103
General and Operations Managers	90
Shipping, Receiving, and Traffic Clerks	78
Sheet Metal Workers	76
Structural Metal Fabricators and Fitters	75
Sales Representatives, Wholesale and Manufacturing, Except Technical & Scientific Products	72
Laborers and Freight, Stock, and Material Movers, Hand	70
Maintenance and Repair Workers, General	69
Office Clerks, General	69
Bookkeeping, Accounting, and Auditing Clerks	64
Helpers-Production Workers	56
Computer-Controlled Machine Tool Operators, Metal and Plastic	49
Packers and Packagers, Hand	48
Secretaries, Except Legal, Medical, and Executive	46
Industrial Production Managers	43
Installation, Maintenance, and Repair Workers, All Other	41
Customer Service Representatives	36

Existing Clusters, Industry List: Greater Richmond

AGRICULTURE, FORESTRY, AND FISHING	Logging
	Support Activities for Animal Production
	Support Activities for Crop Production
SUPPORT ACTIVITIES FOR FORESTRY	Support Activities for Forestry
AUTOMOTIVE MANUFACTURING	Motor Vehicle Body and Trailer Manufacturing
CHEMICALS & MATERIALS	Resin, Synthetic Rubber, & Artificial Synthetic Fibers & Filaments Mfg.
	Basic Chemical Manufacturing
	Other Chemical Product and Preparation Manufacturing
	Petroleum and Coal Products Manufacturing
	Paint, Coating, and Adhesive Manufacturing
	Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing
COMMUNICATION & ENTERTAINMENT	Wireless Telecommunications Carriers (except Satellite)
	Cable and Other Program Distribution
	Cable and Other Subscription Programming
	Internet Service Providers and Web Search Portals
	Telecommunications Resellers
	Independent Artists, Writers, and Performers
	Promoters of Performing Arts, Sports, and Similar Events
	Other Information Services
	Internet Publishing and Broadcasting
	Agents and Mgrs for Artists, Athletes, Entertainers, and Other
DISTRIBUTION & WAREHOUSING	
	General Freight Trucking
	Specialized Freight Trucking
	Support Activities for Air Transportation
	Freight Transportation Arrangement
	Support Activities for Road Transportation
	Deep Sea, Coastal, and Great Lakes Water Transportation
	Support Activities for Water Transportation
	Other Support Activities for Transportation
ELECTRONICS EQUIPMENT & INSTRUMENTS MANUFACTURING	Semiconductor and Other Electronic Component Manufacturing
	Electrical Equipment Manufacturing
	Navigational, Measuring, Electromedical, and Control Instr. Mfg.
COMMERCIAL AND SERVICE INDUSTRY MACHINERY MANUFACTURING	Commercial and Service Industry Machinery Manufacturing
OTHER ELECTRICAL EQUIPMENT AND COMPONENT MANUFACTURING	Other Electrical Equipment and Component Manufacturing
FINANCE AND INSURANCE	Nondepositary Credit Intermediation
	Insurance Carriers
	Depository Credit Intermediation
	Agencies, Brokerages, and Other Insurance Related Activities
	Securities and Commodity Contracts Intermediation and Brokerage
	Monetary Authorities - Central Bank
	Other Financial Investment Activities
	Activities Related to Credit Intermediation
	Other Investment Pools and Funds
	Insurance and Employee Benefit Funds
FOOD PROCESSING	Bakeries and Tortilla Manufacturing
	Other Food Manufacturing
	Dairy Product Manufacturing
	Sugar and Confectionery Product Manufacturing
HEALTH CARE	General Medical and Surgical Hospitals
	Community Care Facilities for the Elderly
	Home Health Care Services
	Nursing Care Facilities
	Outpatient Care Centers
	Other Residential Care Facilities
	Other Ambulatory Health Care Services
	Residential Mental Retardation, Mental Health and Substance Abuse Facilities
	Specialty (except Psychiatric and Substance Abuse) Hospitals
	Medical and Diagnostic Laboratories

Existing Clusters, Industry List: Greater Richmond (continued)	
HEALTH CARE (continued)	
Psychiatric and Substance Abuse Hospitals	
INFORMATION TECHNOLOGY AND PROFESSIONAL SERVICES	
Accounting, Tax Preparation, Bookkeeping, and Payroll Services	
Architectural, Engineering, and Related Services	
Computer Systems Design and Related Services	
Management, Scientific, and Technical Consulting Services	
Advertising and Related Services	
Other Professional, Scientific, and Technical Services	
Data Processing, Hosting, and Related Services	
NONMETALLIC MINERALS & RELATED PRODUCTS	
Nonmetallic Mineral Mining and Quarrying	
Support Activities for Mining	
WOOD PRODUCT & FURNITURE MANUFACTURING	
Other Wood Product Manufacturing	
Sawmills and Wood Preservation	
Veneer, Plywood, and Engineered Wood Product Manufacturing	

Emerging Clusters, Industry List: Greater Richmond

MEDICAL RELATED PRODUCTS MANUFACTURING	
Other Miscellaneous Manufacturing	
Manufacturing and Reproducing Magnetic and Optical Media	
METALS AND RELATED MANUFACTURING	
Architectural and Structural Metals Manufacturing	
Machine Shops; Turned Product; and Screw, Nut, and Bolt	
Other General Purpose Machinery Manufacturing	
Coating, Engraving, Heat Treating, and Allied Activities	

Top 25 Skills-Based Industry Targets for Greater Richmond's Displaced Workers

The table below displays the top 25 skills-based industry recruitment targets* for Greater Richmond, based on a comparison of the skills inherent to the region's displaced workers and the skill requirements of individual industries.

Rank	Industry Title
1	Soap, Cleaning Compound, and Toilet Preparation Manufacturing
2	Tobacco Manufacturing
3	Grain and Oilseed Milling
4	Textile and Fabric Finishing and Fabric Coating Mills
5	Fruit and Vegetable Preserving and Specialty Food Manufacturing
6	Paint, Coating, and Adhesive Manufacturing
7	Animal Food Manufacturing
8	Other Food Manufacturing
9	Pharmaceutical and Medicine Manufacturing
10	Electric Power Generation, Transmission and Distribution
11	Beverage Manufacturing
12	Dairy Product Manufacturing
13	Resin, Synthetic Rubber, and Artificial Synthetic Fibers and Filaments Manufacturing
14	Pipeline Transportation of Natural Gas
15	Other Chemical Product and Preparation Manufacturing
16	Natural Gas Distribution
17	Manufacturing and Reproducing Magnetic and Optical Media
18	Support Activities for Air Transportation
19	Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing
20	Glass and Glass Product Manufacturing
21	Rail Transportation
22	Deep Sea, Coastal, and Great Lakes Water Transportation
23	Lime and Gypsum Product Manufacturing
24	Household Appliance Manufacturing
25	Other Support Services

*A total of 295 industries were ranked.

Greater Fredericksburg Existing Industry Clusters (ranked by 2004 employment)	
INFORMATION TECHNOLOGY AND PROFESSIONAL SERVICES	
COMMUNICATION & ENTERTAINMENT	
METALS AND RELATED MANUFACTURING	
WOOD PRODUCT MANUFACTURING	
NONMETALLIC MINERALS & RELATED PRODUCTS*	
AGRICULTURE, FORESTRY, AND FISHING*	

* These clusters have low growth potential and therefore would not be considered as "target" clusters, although individual industries may have good growth potential.

Greater Fredericksburg Emerging Industry Clusters (ranked by 2004 employment)	
HEALTH CARE	
FINANCE AND INSURANCE	
CHEMICALS & MATERIALS*	

Top 25 Occupations for Existing Industry Clusters	
	Estimated Employment 2004 q4
Registered Nurses	842
Computer Software Engineers, Applications	414
Office Clerks, General	408
Computer Programmers	349
Computer Software Engineers, Systems Software	336
Management Analysts	321
Computer Systems Analysts	320
General and Operations Managers	299
Nursing Aides, Orderlies, and Attendants	288
Customer Service Representatives	273
Computer Support Specialists	246
Secretaries, Except Legal, Medical, and Executive	236
Team Assemblers	217
Bookkeeping, Accounting, and Auditing Clerks	185
Business Operations Specialists, All Other	166
Licensed Practical and Licensed Vocational Nurses	156
First-Line Supervisors/Managers of Office and Administrative	151
Receptionists and Information Clerks	146
Network and Computer Systems Administrators	145
Executive Secretaries and Administrative Assistants	142
Civil Engineers	134
Electrical Engineers	134
Insurance Sales Agents	133
Laborers and Freight, Stock and Material Movers, Hand	121
Computer and Information Systems Managers	110

Top 25 Occupations for Emerging Industry Clusters	
	Estimated Employment 2004 q4
Registered Nurses	842
Nursing Aides, Orderlies, and Attendants	288
Office Clerks, General	167
Licensed Practical and Licensed Vocational Nurses	156
Insurance Sales Agents	133
Maids and Housekeeping Cleaners	99
Customer Service Representatives	88
Emergency Medical Technicians and Paramedics	81
Medical and Clinical Laboratory Technologists	78
Radiologic Technologists and Technicians	78
Secretaries, Except Legal, Medical, and Executive	70
Interviewers, Except Eligibility and Loan	63
Healthcare Support Workers, All Other	52
First-Line Supervisors/Managers of Office and Administrative	50
Billing and Posting Clerks and Machine Operators	49
Medical and Clinical Laboratory Technicians	46
Bookkeeping, Accounting, and Auditing Clerks	43
Claims Adjusters, Examiners, and Investigators	43
Respiratory Therapists	41
Receptionists and Information Clerks	41
Home Health Aides	41
Medical and Health Services Managers	38
Medical Records and Health Information Technicians	36
Insurance Underwriters	34
Executive Secretaries and Administrative Assistants	34

Existing Clusters, Industry List: Greater Fredericksburg

COMMUNICATION & ENTERTAINMENT	Newspaper, Periodical, Book, and Directory Publishers
	Wired Telecommunications Carriers
	Other Telecommunications
	Wireless Telecommunications Carriers (except Satellite)
CABLE AND TELEVISION DISTRIBUTION	Cable and Other Program Distribution
	Radio and Television Broadcasting
INTERNET PUBLISHING AND BROADCASTING	Internet Publishing and Broadcasting
INTERNET SERVICE PROVIDERS AND WEB SEARCH PORTALS	Internet Service Providers and Web Search Portals
OTHER INFORMATION SERVICES	Other Information Services
	Cable and Other Subscription Programming
	Software Publishers
INFORMATION TECHNOLOGY AND PROFESSIONAL SERVICES	Computer Systems Design and Related Services
	Architectural, Engineering, and Related Services
	Other Professional, Scientific, and Technical Services
	Management, Scientific, and Technical Consulting Services
DATA PROCESSING, HOSTING, AND RELATED SERVICES	Data Processing, Hosting, and Related Services
METALS AND RELATED MANUFACTURING	Motor Vehicle Parts Manufacturing
	Metalworking Machinery Manufacturing
	Agriculture, Construction, and Mining Machinery Manufacturing
	Machine Shops; Turned Product, and Screw, Nut, and Bolt Manufacturing
FOUNDRIES	Foundries
NONMETALLIC MINERALS & RELATED PRODUCTS	Cement and Concrete Product Manufacturing
	Petroleum and Coal Products Manufacturing
	Lime and Gypsum Product Manufacturing
WOOD PRODUCT & FURNITURE MANUFACTURING	Sawmills and Wood Preservation
	Veneer, Plywood, and Engineered Wood Product Manufacturing
	Other Wood Product Manufacturing
	Household and Institutional Furniture and Kitchen Cabinet Manufacturing
	Office Furniture (including Fixtures) Manufacturing

Top 25 Skills-Based Industry Targets for Greater Fredericksburg's Displaced Workers

The table below displays the top 25 skills-based industry recruitment targets* for Greater Fredericksburg, based on a comparison of the skills inherent to the region's displaced workers and the skill requirements of individual industries.

Rank	Industry Title
1	Business Support Services
2	Drugs and Druggists' Sundries Merchant Wholesalers
3	Community Care Facilities for the Elderly
4	Electronics and Appliance Stores
5	Florists
6	Residential Mental Retardation, Mental Health and Substance Abuse Facilities
7	Wholesale Electronic Markets and Agents and Brokers
8	Building Material and Supplies Dealers
9	Home Health Care Services
10	Travel Arrangement and Reservation Services
11	Other Miscellaneous Store Retailers
12	Home Furnishings Stores
13	Electronic Shopping and Mail-Order Houses
14	Wireless Telecommunications Carriers (except Satellite)
15	Museums, Historical Sites, and Similar Institutions
16	Furniture Stores
17	Office Supplies, Stationery, and Gift Stores
18	Electrical and Electronic Goods Merchant Wholesalers
19	Hardware, and Plumbing and Heating Equipment and Supplies Merchant Wholesalers
20	Apparel, Piece Goods, and Notions Merchant Wholesalers
21	Taxi and Limousine Service
22	Paper and Paper Product Merchant Wholesalers
23	Other Transit and Ground Passenger Transportation
24	Health and Personal Care Stores
25	Special Food Services

*A total of 295 industries were ranked.

Virginia's River Country Existing Industry Clusters

(ranked by 2004 employment)

- AGRICULTURE, FORESTRY, AND FISHING*
- METALS AND RELATED MANUFACTURING
- WOOD PRODUCT MANUFACTURING
- TEXTILES & APPAREL*

Virginia's River Country Emerging Industry Clusters

(ranked by 2004 employment)

- INFORMATION TECHNOLOGY AND PROFESSIONAL SERVICES
- HEALTH CARE
- FINANCE AND INSURANCE
- FOOD PROCESSING*
- CHEMICALS & MATERIALS*
- MEDICAL RELATED PRODUCTS MANUFACTURING*

Top 25 Occupations for Existing Industry Clusters

	Estimated Employment 2004 q4
Farmworkers and Laborers, Crop, Nursery, and Greenhouse Team Assemblers	258
Nursing Aides, Orderlies, and Attendants	203
Farm, Ranch, and Other Agricultural Managers Accountants and Auditors	141
Lawyers	106
Office Clerks, General	104
Laborers and Freight, Stock, and Material Movers, Hand	96
Woodworking Machine Setters, Operators, and Tenders, Except Sawing Bookkeeping, Accounting, and Auditing Clerks	93
Welders, Cutters, Solderers, and Brazers	92
Inspectors, Testers, Sorters, Samplers, and Weighers	85
Registered Nurses	84
Industrial Truck and Tractor Operators	80
Logging Equipment Operators	73
Licensed Practical and Licensed Vocational Nurses	71
Home Health Aides	71
General and Operations Managers	70
First-Line Supervisors/Managers of Production and Operating	62
Carpenters	61
Sawing Machine Setters, Operators, and Tenders, Wood Maintenance and Repair Workers, General	60
Secretaries, Except Legal, Medical, and Executive	59
First-Line Supervisors/Managers of All Other	53
Nonfarm Animal Caretakers	53
Executive Secretaries and Administrative Assistants	52
Veterinary Assistants and Laboratory Animal Caretakers	52
Maids and Housekeeping Cleaners	52
Nonfarm Animal Caretakers	47
Computer Systems Analysts	47
Veterinarians	47

* These clusters have low growth potential and therefore would not be considered as "target" clusters, although individual industries may have good growth potential.

Top 25 Occupations for Emerging Industry Clusters

	Estimated Employment 2004 q4
Nursing Aides, Orderlies, and Attendants	141
Lawyers	96
Accountants and Auditors	93
Office Clerks, General	73
Registered Nurses	71
Licensed Practical and Licensed Vocational Nurses	62
Home Health Aides	61
Bookkeeping, Accounting, and Auditing Clerks	52
Paralegals and Legal Assistants	47
Insurance Sales Agents	46
Legal Secretaries	37
Customer Service Representatives	35
Receptionists and Information Clerks	34
Personal and Home Care Aides	33
Management Analysts	32
Tax Preparers	31
First-Line Supervisors/Managers of Office and Administrative Secretaries, Except Legal, Medical, and Executive	29
General and Operations Managers	29
Veterinary Assistants and Laboratory Animal Caretakers	25
Maids and Housekeeping Cleaners	21
Nonfarm Animal Caretakers	20
Executive Secretaries and Administrative Assistants	18
Computer Systems Analysts	17
Veterinarians	16

Existing Clusters, Industry List: Virginia's River Country	
Emerging Clusters, Industry List: Virginia's River Country	
AGRICULTURE, FORESTRY, AND FISHING	CHEMICALS & MATERIALS
Greenhouse, Nursery, and Floriculture Production	Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing
Logging	Plastics Product Manufacturing
Vegetable and Melon Farming	FINANCE AND INSURANCE
Fishing	Agencies, Brokerages, and Other Insurance Related Activities
Oilseed and Grain Farming	Nondepository Credit Intermediation
Fruit and Tree Nut Farming	Other Investment Pools and Funds
Cattle Ranching and Farming	FOOD PROCESSING
Other Crop Farming	Beverage Manufacturing
Support Activities for Crop Production	Sugar and Confectionery Product Manufacturing
Support Activities for Forestry	Fruit and Vegetable Preserving and Specialty Food Manufacturing
Support Activities for Animal Production	Animal Slaughtering and Processing
METALS AND RELATED MANUFACTURING	HEALTH CARE
Motor Vehicle Parts Manufacturing	Home Health Care Services
Other General Purpose Machinery Manufacturing	Residential Mental Retardation, Mental Health and Substance Abuse Facilities
Architectural and Structural Metals Manufacturing	Outpatient Care Centers
Ship and Boat Building	Other Residential Care Facilities
Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	INFORMATION TECHNOLOGY AND PROFESSIONAL SERVICES
Other Electrical Equipment and Component Manufacturing	Accounting, Tax Preparation, Bookkeeping, and Payroll Services
Foundries	Legal Services
Other Transportation Equipment Manufacturing	Other Professional, Scientific, and Technical Services
TEXTILES & APPAREL	Management, Scientific, and Technical Consulting Services
Fabric Mills	Computer Systems Design and Related Services
Cut and Sew Apparel Manufacturing	MEDICAL RELATED PRODUCTS MANUFACTURING
Textile Furnishings Mills	Other Miscellaneous Manufacturing
WOOD PRODUCT & FURNITURE MANUFACTURING	Medical Equipment and Supplies Manufacturing
Sawmills and Wood Preservation	
Other Wood Product Manufacturing	
Veneer, Plywood, and Engineered Wood Product Manufacturing	
Household and Institutional Furniture and Kitchen Cabinet Manufacturing	
Office Furniture (including Fixtures) Manufacturing	

Top 25 Skills-Based Industry Targets for Virginia's River Country's Displaced Workers

The table below displays the top 25 skills-based industry recruitment targets* for Virginia's River Country, based on a comparison of the skills inherent to the region's displaced workers and the skill requirements of individual industries.

Rank	Industry Title
1	Services to Buildings and Dwellings
2	School and Employee Bus Transportation
3	Support Activities for Crop Production
4	General Freight Trucking
5	Waste Collection
6	Specialized Freight Trucking
7	Couriers
8	Household and Institutional Furniture and Kitchen Cabinet Manufacturing
9	Animal Slaughtering and Processing
10	Logging
11	Cut and Sew Apparel Manufacturing
12	Highway, Street, and Bridge Construction
13	Support Activities for Animal Production
14	Apparel Accessories and Other Apparel Manufacturing
15	Other Specialty Trade Contractors
16	Support Activities for Road Transportation
17	Drycleaning and Laundry Services
18	Other Heavy and Civil Engineering Construction
19	Cement and Concrete Product Manufacturing
20	Remediation and Other Waste Management Services
21	Farm Product Raw Material Merchant Wholesalers
22	Waste Treatment and Disposal
23	Utility System Construction
24	Sawmills and Wood Preservation
25	Footwear Manufacturing

*A total of 295 industries were ranked.

Virginia's Gateway Existing Industry Clusters (ranked by 2004 employment)	
HEALTH CARE	METALS AND RELATED MANUFACTURING
DISTRIBUTION & WAREHOUSING	WOOD PRODUCT MANUFACTURING
CHEMICALS & MATERIALS*	TEXTILES & APPAREL*
FINANCE AND INSURANCE	AGRICULTURE, FORESTRY, AND FISHING*
MACHINERY & EQUIPMENT MANUFACTURING	FOOD PROCESSING*
TOBACCO MANUFACTURING*	

* These clusters have low growth potential and therefore would not be considered as "target" clusters, although individual industries may have good growth potential.

Virginia's Gateway Emerging Industry Clusters (ranked by 2004 employment)	
INFORMATION TECHNOLOGY AND PROFESSIONAL SERVICES	
COMMUNICATION & ENTERTAINMENT	

Top 25 Occupations for Emerging Industry Clusters	
	Estimated Employment 2004 q4
Accountants and Auditors	3,444
Management Analysts	3,433
Lawyers	3,199
Office Clerks, General	2,999
Computer Software Engineers, Applications	2,233
Bookkeeping, Accounting, and Auditing Clerks	1,888
Computer Systems Analysts	1,844
General and Operations Managers	1,800
Computer Programmers	1,766
Computer Software Engineers, Systems Software	1,611
Secretaries, Except Legal, Medical, and Executive	1,588
Paralegals and Legal Assistants	1,577
Civil Engineers	1,377
Receptionists and Information Clerks	1,288
Electrical Engineers	1,227
Computer Support Specialists	1,227
Legal Secretaries	1,222
Executive Secretaries and Administrative Assistants	1,133
Veterinary Assistants and Laboratory Animal Caretakers	1,109
Tax Preparers	1,044
First-Line Supervisors/Managers of Office and Administrative	969
Maintenance and Repair Workers, General	944
Accountants and Auditors	909
Inspectors, Testers, Sorters, Samplers, and Weighers	868
Secretaries, Except Legal, Medical, and Executive	868
Executive Secretaries and Administrative Assistants	858
Maids and Housekeeping Cleaners	858
Stock Clerks and Order Fillers	858
Management Analysts	858

Existing Clusters, Industry List: Virginia's Gateway

Existing Clusters, Industry List: Virginia's Gateway (continued)

AGRICULTURE, FORESTRY, AND FISHING	Greenhouse, Nursery, and Floriculture Production
	Hog and Pig Farming
	Other Crop Farming
	Support Activities for Crop Production
	Cattle Ranching and Farming
	Support Activities for Animal Production
	Other Animal Production
	Support Activities for Forestry
	Oilseed and Grain Farming
	Fishing
CHEMICALS & MATERIALS	Resin, Synthetic Rubber, and Artificial Synthetic Fibers and Filaments Manufacturing
	Basic Chemical Manufacturing
	Rubber Product Manufacturing
	Cement and Concrete Product Manufacturing
	Other Chemical Product and Preparation Manufacturing
	Coating, Engraving, Heat Treating, and Allied Activities
	Paint, Coating, and Adhesive Manufacturing
DISTRIBUTION & WAREHOUSING	Warehousing and Storage
	General Freight Trucking
	Couriers
	Specialized Freight Trucking
	Automotive Equipment Rental and Leasing
	Freight Transportation Arrangement
	Support Activities for Road Transportation
	Other Support Activities for Transportation
	Local Messengers and Local Delivery
	Scenic and Sightseeing Transportation, Land
	Support Activities for Air Transportation
	Support Activities for Water Transportation
FINANCE AND INSURANCE	Insurance Carriers
	Nondepositary Credit Intermediation
	Agencies, Brokerages, and Other Insurance Related Activities
	Activities Related to Credit Intermediation
	Insurance and Employee Benefit Funds
	Other Investment Pools and Funds
FOOD PROCESSING	Animal Slaughtering and Processing
	Animal Food Manufacturing
HEALTH CARE	General Medical and Surgical Hospitals
	Home Health Care Services
	Community Care Facilities for the Elderly
	Nursing Care Facilities
	Psychiatric and Substance Abuse Hospitals
	Residential Mental Retardation, Mental Health and Substance Abuse Facilities
	Outpatient Care Centers
	Other Residential Care Facilities
	Other Ambulatory Health Care Services
	Medical and Diagnostic Laboratories
	Specialty (except Psychiatric and Substance Abuse) Hospitals
MACHINERY & EQUIPMENT MANUFACTURING	Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing
	Other Fabricated Metal Product Manufacturing
	Other General Purpose Machinery Manufacturing
	Agriculture, Construction, and Mining Machinery Manufacturing
	Navigational, Measuring, Electromedical, and Control Instruments Manufacturing
	Commercial and Service Industry Machinery Manufacturing
	Motor Vehicle Parts Manufacturing
	Electric Lighting Equipment Manufacturing
METALS AND RELATED MANUFACTURING	Iron and Steel Mills and Ferroalloy Manufacturing

Existing Clusters, Industry List: Virginia's Gateway (continued)	
METALS AND RELATED MANUFACTURING (continued)	
Architectural and Structural Metals Manufacturing	
Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	
Forging and Stamping	
Foundries	
Nonferrous Metal (except Aluminum) Production and Processing	
Steel Product Manufacturing from Purchased Steel	
Boiler, Tank, and Shipping Container Manufacturing	
Metalworking Machinery Manufacturing	
TEXTILES & APPAREL	
Fabric Mills	
Textile and Fabric Finishing and Fabric Coating Mills	
Textile Furnishings Mills	
Cut and Sew Apparel Manufacturing	
Other Textile Product Mills	
TOBACCO MANUFACTURING	
Tobacco Manufacturing	
Printing and Related Support Activities	
WOOD PRODUCT & FURNITURE MANUFACTURING	
Veneer, Plywood, and Engineered Wood Product Manufacturing	
Sawmills and Wood Preservation	
Other Wood Product Manufacturing	

Emerging Clusters, Industry List: Virginia's Gateway	
COMMUNICATION & ENTERTAINMENT	
Radio and Television Broadcasting	
Motion Picture and Video Industries	
Independent Artists, Writers, and Performers	
INFORMATION TECHNOLOGY AND PROFESSIONAL SERVICES	
Architectural, Engineering, and Related Services	
Computer Systems Design and Related Services	
Legal Services	
Accounting, Tax Preparation, Bookkeeping, and Payroll Services	
Management, Scientific, and Technical Consulting Services	
Other Professional, Scientific, and Technical Services	
Data Processing, Hosting, and Related Services	
Scientific Research and Development Services	

Top 25 Skills-Based Industry Targets for Virginia's Gateway's Displaced Workers

The table below displays the top 25 skills-based industry recruitment targets* for Virginia's Gateway, based on a comparison of the skills inherent to the region's displaced workers and the skill requirements of individual industries.

Rank	Industry Title
1	Chemical and Allied Products Merchant Wholesalers
2	Manufacturing and Reproducing Magnetic and Optical Media
3	Colleges, Universities, and Professional Schools
4	Professional and Commercial Equipment and Supplies Merchant Wholesalers
5	Apparel, Piece Goods, and Notions Merchant Wholesalers
6	Junior Colleges
7	Electrical and Electronic Goods Merchant Wholesalers
8	Miscellaneous Nondurable Goods Merchant Wholesalers
9	Business Schools and Computer and Management Training
10	Miscellaneous Durable Goods Merchant Wholesalers
11	Other Miscellaneous Manufacturing
12	Medical Equipment and Supplies Manufacturing
13	Metal and Mineral (except Petroleum) Merchant Wholesalers
14	Grocery and Related Product Wholesalers
15	Furniture and Home Furnishing Merchant Wholesalers
16	Drugs and Druggists' Sundries Merchant Wholesalers
17	Hardware, and Plumbing and Heating Equipment and Supplies Merchant Wholesalers
18	Household Appliance Manufacturing
19	Commercial and Service Industry Machinery Manufacturing
20	Electric Lighting Equipment Manufacturing
21	Motor Vehicle and Motor Vehicle Parts and Supplies Merchant Wholesalers
22	Petroleum and Petroleum Products Merchant Wholesalers
23	Other Motor Vehicle Dealers
24	Paper and Paper Product Merchant Wholesalers
25	Machinery, Equipment, and Supplies Merchant Wholesalers

*A total of 295 industries were ranked.

Eastern Shore Existing Industry Clusters

(ranked by 2004 employment)

FOOD PROCESSING*
 AGRICULTURE, FORESTRY, AND FISHING*
 INFORMATION TECHNOLOGY AND PROFESSIONAL SERVICES
 CHEMICALS & MATERIALS*
 WOOD PRODUCT MANUFACTURING
 METALS AND RELATED MANUFACTURING
 COMMUNICATION & ENTERTAINMENT

* These clusters have low growth potential and therefore would not be considered as "target" clusters, although individual industries may have good growth potential.

Eastern Shore Emerging Industry Clusters

(ranked by 2004 employment)

HEALTH CARE
 FINANCE AND INSURANCE

Top 25 Occupations for Existing Industry Clusters

Estimated Employment 2004 q4
Farmworkers and Laborers, Crop, Nursery, and Greenhouse
Meat, Poultry, and Fish Cutters and Trimmers
Farm, Ranch, and Other Agricultural Managers
Slaughterers and Meat Packers
Packaging and Filling Machine Operators and Tenders
Laborers and Freight, Stock, and Material Movers, Hand
Nursing Aides, Orderlies, and Attendants
Truck Drivers, Heavy and Tractor-Trailer
Food Batchmakers
First-Line Supervisors/Managers of Production and Operating
Helpers--Production Workers
Packers and Packagers, Hand
Production Workers, All Other
Farming, Fishing, and Forestry Workers, All Other (OES Only)
Industrial Truck and Tractor Operators
Farmworkers, Farm and Ranch Animals
Maintenance and Repair Workers, General
Office Clerks, General
Home Health Aides
General and Operations Managers
Registered Nurses
Agricultural Equipment Operators
Licensed Practical and Licensed Vocational Nurses
Inspectors, Testers, Sorters, Samplers, and Weighers
Bookkeeping, Accounting, and Auditing Clerks

Top 25 Occupations for Emerging Industry Clusters

Estimated Employment 2004 q4
Nursing Aides, Orderlies, and Attendants
Home Health Aides
Registered Nurses
Licensed Practical and Licensed Vocational Nurses
Personal and Home Care Aides
Maids and Housekeeping Cleaners
Office Clerks, General
Cooks, Institution and Cafeteria
Food Preparation Workers
Food Servers, Nonrestaurant
General and Operations Managers
First-Line Supervisors/Managers of Office and Administrative
Physical Therapists
Receptionists and Information Clerks
Customer Service Representatives
Recreation Workers
Rehabilitation Counselors
Tellers
Waiters and Waitresses
Bookkeeping, Accounting, and Auditing Clerks
Maintenance and Repair Workers, General
Medical and Public Health Social Workers
Combined Food Preparation and Serving Workers, Including Fast Food
Billing and Posting Clerks and Machine Operators
Medical and Health Services Managers

Existing Clusters, Industry List: Eastern Shore

AGRICULTURE, FORESTRY, AND FISHING	
Vegetable and Melon Farming	
Greenhouse, Nursery, and Floriculture Production	
Support Activities for Crop Production	
Animal Aquaculture	
Other Crop Farming	
Poultry and Egg Production	
Oilseed and Grain Farming	
CHEMICALS & MATERIALS	
Cement and Concrete Product Manufacturing	
Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing	
Basic Chemical Manufacturing	
COMMUNICATION & ENTERTAINMENT	
Wired Telecommunications Carriers	
Cable and Other Program Distribution	
FOOD PROCESSING	
Animal Slaughtering and Processing	
Bakeries and Tortilla Manufacturing	
INFORMATION TECHNOLOGY AND PROFESSIONAL SERVICES	
Architectural, Engineering, and Related Services	
Computer Systems Design and Related Services	
Scientific Research and Development Services	
METALS AND RELATED MANUFACTURING	
Foundries	
Ship and Boat Building	
Nonferrous Metal (except Aluminum) Production and Processing	
Industrial Machinery Manufacturing	
WOOD PRODUCT & FURNITURE MANUFACTURING	
Sawmills and Wood Preservation	
Veneer, Plywood, and Engineered Wood Product Manufacturing	

Top 25 Skills-Based Industry Targets for Eastern Shore's Displaced Workers

The table below displays the top 25 skills-based industry recruitment targets* for the Eastern Shore, based on a comparison of the skills inherent to the region's displaced workers and the skill requirements of individual industries.

Rank	Industry Title
1	School and Employee Bus Transportation
2	Services to Buildings and Dwellings
3	Support Activities for Crop Production
4	General Freight Trucking
5	Waste Collection
6	Specialized Freight Trucking
7	Couriers
8	Animal Slaughtering and Processing
9	Logging
10	Highway, Street, and Bridge Construction
11	Cut and Sew Apparel Manufacturing
12	Support Activities for Animal Production
13	Apparel Accessories and Other Apparel Manufacturing
14	Drycleaning and Laundry Services
15	Other Specialty Trade Contractors
16	Support Activities for Road Transportation
17	Household and Institutional Furniture and Kitchen Cabinet Manufacturing
18	Other Heavy and Civil Engineering Construction
19	Cement and Concrete Product Manufacturing
20	Remediation and Other Waste Management Services
21	Utility System Construction
22	Waste Treatment and Disposal
23	Sawmills and Wood Preservation
24	Building Finishing Contractors
25	Foundation, Structure, and Building Exterior Contractors

*A total of 295 industries were ranked.

Hampton Roads Existing Industry Clusters

(ranked by 2004 employment)

INFORMATION TECHNOLOGY AND PROFESSIONAL SERVICES	FOOD PROCESSING*
HEALTH CARE	WOOD PRODUCT MANUFACTURING
SHIP, BOAT AND TRANSPORTATION EQUIPMENT MANUFACTURING	METALS AND RELATED MANUFACTURING
FINANCE AND INSURANCE	ELECTRONICS EQUIPMENT & INSTRUMENTS MANUFACTURING
DISTRIBUTION & WAREHOUSING	CHEMICALS & MATERIALS*
COMMUNICATION & ENTERTAINMENT	TEXTILES & APPAREL*
AUTOMOTIVE MANUFACTURING*	AGRICULTURE, FORESTRY, AND FISHING*

* These clusters have low growth potential and therefore would not be considered as "target" clusters, although individual industries may have good growth potential.

Top 25 Occupations for Existing Industry Clusters

	Estimated Employment 2004 q4
Registered Nurses	10,113
Team Assemblers	7,880
Nursing Aides, Orderlies, and Attendants	6,321
Office Clerks, General	5,704
Welders, Cutters, Solderers, and Brazers	5,184
Customer Service Representatives	5,172
Laborers and Freight, Stock, and Material Movers, Hand	4,949
Truck Drivers, Heavy and Tractor-Trailer	4,549
General and Operations Managers	4,071
Assemblers and Fabricators, All Other	4,023
Bookkeeping, Accounting, and Auditing Clerks	3,446
Licensed Practical and Licensed Vocational Nurses	3,102
Inspectors, Testers, Sorters, Samplers, and Weighers	2,975
Industrial Truck and Tractor Operators	2,812
First-Line Supervisors/Managers of Office and Administrative	2,806
Computer Software Engineers, Applications	2,399
Tellers	2,370
Maintenance and Repair Workers, General	2,328
Computer Software Engineers, Systems Software	2,321
Computer Programmers	2,296
Computer Systems Analysts	2,293
Executive Secretaries and Administrative Assistants	2,231
Secretaries, Except Legal, Medical, and Executive	2,202
Business Operations Specialists, All Other	2,177
Insurance Sales Agents	2,049

THERE ARE NO EMERGING INDUSTRY CLUSTERS
IN THE HAMPTON ROADS STUDY REGION.

Existing Clusters, Industry List: Hampton Roads	
AGRICULTURE, FORESTRY, AND FISHING	
Logging	
Other Crop Farming	
Support Activities for Animal Production	
Oilseed and Grain Farming	
Support Activities for Crop Production	
Support Activities for Forestry	
Timber Tract Operations	
AUTOMOTIVE MANUFACTURING	
Motor Vehicle Manufacturing	
Motor Vehicle Parts Manufacturing	
Motor Vehicle Body and Trailer Manufacturing	
Spring and Wire Product Manufacturing	
CHEMICALS & MATERIALS	
Basic Chemical Manufacturing	
Petroleum and Coal Products Manufacturing	
Resin, Synthetic Rubber, and Artificial Synthetic Fibers and Filaments Manufacturing	
Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing	
Other Chemical Product and Preparation Manufacturing	
COMMUNICATION & ENTERTAINMENT	
Newspaper, Periodical, Book, and Directory Publishers	
Radio and Television Broadcasting	
Wired Telecommunications Carriers	
Cable and Other Subscription Programming	
Wireless Telecommunications Carriers (except Satellite)	
Internet Service Providers and Web Search Portals	
Software Publishers	
Cable and Other Program Distribution	
Telecommunications Resellers	
Internet Publishing and Broadcasting	
Other Information Services	
Satellite Telecommunications	
Other Telecommunications	

Existing Clusters, Industry List: Hampton Roads (continued)	
DISTRIBUTION & WAREHOUSING	
Support Activities for Water Transportation	
Warehousing and Storage	
Specialized Freight Trucking	
General Freight Trucking	
Freight Transportation Arrangement	
Automotive Equipment Rental and Leasing	
Deep Sea, Coastal, and Great Lakes Water Transportation	
Support Activities for Air Transportation	
Support Activities for Road Transportation	
Scenic and Sightseeing Transportation, Water	
Other Support Activities for Transportation	
Inland Water Transportation	
Scenic and Sightseeing Transportation, Land	
Support Activities for Rail Transportation	
ELECTRONICS EQUIPMENT & INSTRUMENTS MANUFACTURING	
Computer and Peripheral Equipment Manufacturing	
Commercial and Service Industry Machinery Manufacturing	
Other Electrical Equipment and Component Manufacturing	
Semiconductor and Other Electronic Component Manufacturing	
FINANCE AND INSURANCE	
Depository Credit Intermediation	
Insurance Carriers	
Nondepositary Credit Intermediation	
Agencies, Brokerages, and Other Insurance Related Activities	
Securities and Commodity Contracts Intermediation and Brokerage	
Activities Related to Credit Intermediation	
Insurance and Employee Benefit Funds	
Other Financial Investment Activities	
Other Investment Pools and Funds	
Monetary Authorities - Central Bank	
FOOD PROCESSING	
Other Food Manufacturing	
Beverage Manufacturing	
Bakeries and Tortilla Manufacturing	
Sugar and Confectionery Product Manufacturing	

Existing Clusters, Industry List: Hampton Roads (continued)

FOOD PROCESSING (continued)
Grain and Oilseed Milling
HEALTH CARE
General Medical and Surgical Hospitals
Nursing Care Facilities
Community Care Facilities for the Elderly
Home Health Care Services
Psychiatric and Substance Abuse Hospitals
Other Ambulatory Health Care Services
Residential Mental Retardation, Mental Health and Substance Abuse Facilities
Outpatient Care Centers
Medical and Diagnostic Laboratories
Specialty (except Psychiatric and Substance Abuse) Hospitals
Other Residential Care Facilities
INFORMATION TECHNOLOGY AND PROFESSIONAL SERVICES
Architectural, Engineering, and Related Services
Computer Systems Design and Related Services
Management of Companies and Enterprises
Wired Telecommunications Carriers
Data Processing, Hosting, and Related Services
Wireless Telecommunications Carriers (except Satellite)
Cable and Other Program Distribution
Telecommunications Resellers
Satellite Telecommunications
Other Telecommunications
METALS AND RELATED MANUFACTURING
Foundries
Industrial Machinery Manufacturing
Metalworking Machinery Manufacturing
Nonferrous Metal (except Aluminum) Production and Processing
SHIP, BOAT AND TRANSPORTATION EQUIPMENT MANUFACTURING
Ship and Boat Building
Other General Purpose Machinery Manufacturing
Architectural and Structural Metals Manufacturing
Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing
Aerospace Product and Parts Manufacturing

Existing Clusters, Industry List: Hampton Roads (continued)

SHIP, BOAT AND TRANSPORTATION EQUIPMENT MANUFACTURING (continued)
Agriculture, Construction, and Mining Machinery Manufacturing
Engine, Turbine, and Power Transmission Equipment Manufacturing
Railroad Rolling Stock Manufacturing
Electrical Equipment Manufacturing
Other Transportation Equipment Manufacturing
TEXTILES & APPAREL
Fabric Mills
Cut and Sew Apparel Manufacturing
Textile Furnishings Mills
Textile and Fabric Finishing and Fabric Coating Mills
WOOD PRODUCT & FURNITURE MANUFACTURING
Pulp, Paper, and Paperboard Mills
Veneer, Plywood, and Engineered Wood Product Manufacturing
Household and Institutional Furniture and Kitchen Cabinet Manufacturing
Sawmills and Wood Preservation
Office Furniture (including Fixtures) Manufacturing
Other Wood Product Manufacturing

Top 25 Skills-Based Industry Targets for Hampton Roads' Displaced Workers

The table below displays the top 25 skills-based industry recruitment targets* for Hampton Roads, based on a comparison of the skills inherent to the region's displaced workers and the skill requirements of individual industries.

Rank	Industry Title
1	Wireless Telecommunications Carriers (except Satellite)
2	Wholesale Electronic Markets and Agents and Brokers
3	Community Care Facilities for the Elderly
4	Facilities Support Services
5	Business Support Services
6	Electrical and Electronic Goods Merchant Wholesalers
7	Telecommunications Resellers
8	Paper and Paper Product Merchant Wholesalers
9	Hardware, and Plumbing and Heating Equipment and Supplies Merchant Wholesalers
10	Newspaper, Periodical, Book and Directory Publishers
11	Machinery, Equipment, and Supplies Merchant Wholesalers
12	Apparel, Piece Goods, and Notions Merchant Wholesalers
13	State Government (OES designation)
14	Beer, Wine, and Distilled Alcoholic Beverage Merchant Wholesalers
15	Furniture and Home Furnishing Merchant Wholesalers
16	Chemical and Allied Products Merchant Wholesalers
17	Residential Mental Retardation, Mental Health and Substance Abuse Facilities
18	Cable and Other Subscription Programming
19	Professional and Commercial Equipment and Supplies Merchant Wholesalers
20	Other Residential Care Facilities
21	Advertising and Related Services
22	Nursing Care Facilities
23	Vocational Rehabilitation Services
24	Motor Vehicle and Motor Vehicle Parts and Supplies Merchant Wholesalers
25	Travel Arrangement and Reservation Services

*A total of 295 industries were ranked.

Appendix A

Top 50 Employer Listing for Virginia
4th Quarter (October, November, December) 2004

Rank	Company Name	NAICS Code	OC	Size Code
1	U.S. Department of Defense	928	10	09
2	Wal Mart	452	50	09
3	Fairfax County Public Schools	611	30	09
4	Newport News Shipbuilding	336	50	09
5	Food Lion	445	50	09
6	United States Postal Service	491	10	09
7	County of Fairfax	921	30	09
8	Sentara Healthcare	622	50	09
9	City of Virginia Beach Schools	611	30	09
10	University of Virginia Health Services	611	20	09
11	Inova Fairfax Hospital	622	50	09
12	Prince William County School Board	611	30	09
13	VDOT	237	20	09
14	Capital One Bank	522	50	09
15	Science Applications International	541	50	09
16	Chesterfield County School Board	611	30	09
17	Henrico County School Board	611	30	09
18	Virginia Tech Cooperative Extension	611	20	09
19	Booz, Allen and Hamilton	541	50	09
20	Lowes' Home Centers, Inc.	444	50	09
21	Norfolk City School Board	611	30	09
22	U.S. Department of Homeland Defense	926	10	09
23	7-Eleven	447	50	09
24	The Home Depot	444	50	09
25	Giant Food	445	50	09

Appendix A

Top 50 Employer Listing for Virginia
4th Quarter (October, November, December) 2004

Rank	Company Name	NAICS Code	OC	Size Code
26	Loudoun County Schools	611	30	09
27	First Union National Bank	522	50	09
28	Bank of America	522	50	09
29	Target	452	50	09
30	Virginia Commonwealth University	611	20	09
31	Chesapeake City Public School Board	611	30	09
32	U.S. Department of Commerce	926	10	09
33	City of Virginia Beach	921	30	09
34	Virginia Electric & Power Company, Inc.	221	50	09
35	Philip Morris U.S.A., Inc.	312	50	09
36	United Parcel Service, Inc.	492	50	09
37	Newport News Public Schools	611	30	09
38	Riverside Regional Medical Center	622	50	09
39	May Department Stores Company	452	50	09
40	University of Virginia Medical Center	622	20	09
41	Kroger	445	50	09
42	MCV Hospital	622	20	09
43	City of Norfolk	921	30	09
44	Computer Sciences Corporation	541	50	09
45	Lockheed Martin	541	50	09
46	United Air Lines	481	50	09
47	America Online	518	50	09
48	Verizon Virginia, Inc.	517	50	09
49	Roanoke Memorial Community Hospital	622	50	09
50	Hardee's	722	50	09

Appendix A

Top 50 Employer Listing for Virginia
4th Quarter (October, November, December) 2004

Ownership Code (OC)	Ownership Type
10	Federal Government
20	State Government
30	Local Government
50	Private

Size Code	Number of Employees
09	1000 and over employees
08	500 to 999 employees
07	250 to 499 employees
06	100 to 249 employees
05	50 to 99 employees
04	20 to 49 employees
03	10 to 19 employees
02	5 to 9 employees
01	1 to 4 employees

Appendix B
Demand and Supply Analysis

Doctoral

SOCODE	DEMAND		SUPPLY		GAP
	SOCTITLE	Annual Demand	CIPCODE	CIPTITLE	
151011	Computer and Information Scientists, Research	44	110101	Computer and Information Sciences, General	18
191021	Biochemists and Biophysicists	15	260202	Biochemistry	9
191021	Biochemists and Biophysicists	2	260203	Biophysics	1
191042	Medical Scientists, Except Epidemiologists	2	260202	Biochemistry	9
191042	Medical Scientists, Except Epidemiologists	0	260203	Biophysics	1
191042	Medical Scientists, Except Epidemiologists	1	260401	Cell/Cellular Biology and Histology	4
191042	Medical Scientists, Except Epidemiologists	1	260403	Anatomy	3

Doctoral (continued)

SOCICODE	SOCTITLE	DEMAND		SUPPLY		GAP
		Annual Demand	CIPCODE	CIPTITLE	Annual Supply	
191042	Medical Scientists, Except Epidemiologists	4	260503	Medical Microbiology and Bacteriology (NEW)	15	0
191042	Medical Scientists, Except Epidemiologists	0	260806	Human/Medical Genetics	2	0
191042	Medical Scientists, Except Epidemiologists	0	260910	Pathology/Experimental Pathology (NEW)	2	0
191042	Medical Scientists, Except Epidemiologists	2	261001	Pharmacology	7	0
191042	Medical Scientists, Except Epidemiologists	1	261102	Biostatistics	3	0
192012	Physicists	14	400801	Physics, General	32	0
193031	Clinical, Counseling, and School Psychologists	57	420101	Psychology, General	60	0
193031	Clinical, Counseling, and School Psychologists	57	420201	Clinical Psychology	60	0

1st Professional

DEMAND			SUPPLY			GAP
SOCCODE	SOCTITLE	Annual Demand	CIPCODE	CIPTITLE	Annual Supply	
212011	Clergy	26	390602	Divinity/Ministry (BD, MDiv.)	165	0
231011	Lawyers	537	220101	Law (LL.B., J.D.)	1,196	0
291051	Pharmacists	240	512001	Pharmacy (PharmD [USA] PharmD, BS/ BPharm [Canada])	218	22
291131	Veterinarians	103	512401	Veterinary Medicine (DVM)	87	16

Master's

DEMAND			SUPPLY			GAP
SOCCODE	SOCTITLE	Annual Demand	CIPCODE	CIPTITLE	Annual Supply	
152021	Mathematicians	11	270101	Mathematics, General	50	0
152021	Mathematicians	3	270301	Applied Mathematics	11	0
152041	Statisticians	0	261102	Biostatistics	2	0
152041	Statisticians	11	270101	Mathematics, General	50	0
152041	Statisticians	2	270301	Applied Mathematics	11	0

Master's (continued)

DEMAND			SUPPLY			GAP
SOCCODE	SOCTITLE	Annual Demand	CIPCODE	CIPTITLE	Annual Supply	
152041	Statisticians	6	270501	Statistics, General	29	0
192041	Environmental Scientists and Specialists, Including Health	120	030104	Environmental Science (NEW)	6	114
192042	Geoscientists, Except Hydrologists and Geographers	9	400601	Geology/Earth Science, General	9	0
192042	Geoscientists, Except Hydrologists and Geographers	2	400607	Oceanography, Chemical and Physical	2	0
192042	Geoscientists, Except Hydrologists and Geographers	10	400699	Geological and Earth Sciences/Geosciences, Other	10	0
192043	Hydrologists	3	400601	Geology/Earth Science, General	9	0
192043	Hydrologists	1	400607	Oceanography, Chemical and Physical	2	0
193011	Economists	1	010103	Agricultural Economics	6	0
193011	Economists	13	450601	Economics, General	76	0

Master's (continued)

SOCCODE	SOCITLE	Annual Demand	CIPCODE	SUPPLY		GAP
				CIPTITLE	Annual Supply	
193011	Economists	0	450605	International Economics	0	0
193011	Economists	1	520601	Business/Managerial Economics	7	0
193021	Market Research Analysts	295	450601	Economics, General	76	219
193021	Market Research Analysts	0	450605	International Economics	0	0
193021	Market Research Analysts	27	520601	Business/Managerial Economics	7	20
193051	Urban and Regional Planners	61	040301	City/Urban, Community and Regional Planning	71	0
193091	Anthropologists and Archeologists	5	450201	Anthropology	17	0
193094	Political Scientists	3	451001	Political Science and Government, General	14	0
211012	Educational, Vocational, and School Counselors	206	131101	Counselor Education/School Counseling and Guidance Services	295	0
211015	Rehabilitation Counselors	220	512310	Vocational Rehabilitation Counseling/Counselor	28	192

Master's (continued)

DEMAND			SUPPLY			GAP
SOCCODE	SOCITLE	Annual Demand	CIPCODE	CIPTITLE	Annual Supply	
211091	Health Educators	29	511504	Community Health Services/ Liaison/Counseling	16	13
259031	Instructional Coordinators	114	130301	Curriculum and Instruction	748	0
291121	Audiologists	21	510204	Audiology/Audiologist and Speech-Language Pathology/Pathologist	55	0
291123	Physical Therapists	161	512308	Physical Therapy/Therapist	84	77
291127	Speech-Language Pathologists	53	510203	Speech-Language Pathology/Pathologist	42	11
291127	Speech-Language Pathologists	70	510204	Audiology/Audiologist and Speech-Language Pathology/Pathologist	55	15

Bachelor's

DEMAND			SUPPLY			GAP
SOCCODE	SOCTITLE	Annual Demand	CIPCODE	CIPTITLE	Annual Supply	
113051	Industrial Production Managers	21	520101	Business/Commerce, General	674	0
113051	Industrial Production Managers	75	520201	Business Administration and Management, General	2,452	0
113051	Industrial Production Managers	1	520205	Operations Management and Supervision	43	0
119021	Construction Managers	0	151001	Construction Engineering Technology/Technician	7	0
119021	Construction Managers	46	520101	Business/Commerce, General	674	0
119021	Construction Managers	167	520201	Business Administration and Management, General	2,452	0
119021	Construction Managers	3	520205	Operations Management and Supervision	43	0
119151	Social and Community Service Managers	0	440201	Community Organization and Advocacy	6	0

Bachelor's (continued)

DEMAND				SUPPLY		
SOCCODE	SOCTITLE	Annual Demand	CIPCODE	CIPTITLE	Annual Supply	GAP
119151	Social and Community Service Managers	3	440401	Public Administration	156	0
119151	Social and Community Service Managers	13	520101	Business/Commerce, General	674	0
119151	Social and Community Service Managers	47	520201	Business Administration and Management, General	2,452	0
119151	Social and Community Service Managers	8	529999	Business, Management, Marketing, and Related Support Services, Other	397	0
131071	Employment, Recruitment, and Placement Specialists	146	521001	Human Resources Management/Personnel Administration, General	138	8
131071	Employment, Recruitment, and Placement Specialists	0	521002	Labor and Industrial Relations	0	0

Bachelor's (continued)

DEMAND			SUPPLY			GAP
SOCCODE	SOCTITLE	Annual Demand	CIPCODE	CITITLE	Annual Supply	
131072	Compensation, Benefits, and Job Analysis Specialists	73	521001	Human Resources Management/Personnel Administration, General	138	0
131072	Compensation, Benefits, and Job Analysis Specialists	0	521002	Labor and Industrial Relations	0	0
131073	Training and Development Specialists	184	521001	Human Resources Management/Personnel Administration, General	138	46
131073	Training and Development Specialists	165	521003	Organizational Behavior Studies	124	41
132011	Accountants and Auditors	1,616	520301	Accounting	768	848
132011	Accountants and Auditors	59	520305	Accounting and Business/Management (NEW)	28	31
132031	Budget Analysts	41	520301	Accounting	768	0
132031	Budget Analysts	36	520801	Finance, General	659	0

Bachelor's (continued)

DEMAND			SUPPLY			GAP
SOCCODE	SOCTITLE	Annual Demand	CIPCODE	CIPTITLE	Annual Supply	
132041	Credit Analysts	27	520301	Accounting	768	0
132041	Credit Analysts	23	520801	Finance, General	659	0
132051	Financial Analysts	8	520305	Accounting and Business/ Management (NEW)	28	0
132051	Financial Analysts	195	520801	Finance, General	659	0
132052	Personal Financial Advisors	142	520801	Finance, General	659	0
132061	Financial Examiners	17	520301	Accounting	768	0
132071	Loan Counselors	17	520899	Finance and Financial Management Services, Other	2	15
132072	Loan Officers	433	520801	Finance, General	659	0
132081	Tax Examiners, Collectors, and Revenue Agents	47	520301	Accounting	768	0
132099	Financial Specialists, All Other	125	520801	Finance, General	659	0

Bachelor's (continued)

DEMAND			SUPPLY			GAP
SOCCODE	SOCITLE	Annual Demand	CIPCODE	CITITLE	Annual Supply	
151021	Computer Programmers	0	520208	E-Commerce/Electronic Commerce (NEW)	0	0
151021	Computer Programmers	1,116	521201	Management Information Systems, General	317	799
151031	Computer Software Engineers, Applications	280	110701	Computer Science	113	167
151031	Computer Software Engineers, Applications	547	140901	Computer Engineering, General	221	326
151031	Computer Software Engineers, Applications	750	141001	Electrical, Electronics, and Communication Engineering	303	447
151032	Computer Software Engineers, Systems Software	599	110401	Information Science/Studies	365	234
151032	Computer Software Engineers, Systems Software	186	110701	Computer Science	113	73
151032	Computer Software Engineers, Systems Software	363	140901	Computer Engineering, General	221	142

Bachelor's (continued)

DEMAND			SUPPLY			GAP
SOCICODE	SOCTITLE	Annual Demand	CIPCODE	CPTITLE	Annual Supply	
151032	Computer Software Engineers, Systems Software	498	141001	Electrical, Electronics, and Communication Engineering	303	195
151051	Computer Systems Analysts	1,379	110101	Computer and Information Sciences, General	834	545
151051	Computer Systems Analysts	12	110501	Computer Systems Analysis/Analyst	7	5
151061	Database Administrators	249	110101	Computer and Information Sciences, General	834	0
151061	Database Administrators	2	110501	Computer Systems Analysis/Analyst	7	0
151061	Database Administrators	0	111003	Computer and Information Systems Security (NEW)	0	0
151061	Database Administrators	95	521201	Management Information Systems, General	317	0
151071	Network and Computer Systems Administrators	521	110101	Computer and Information Sciences, General	834	0
151071	Network and Computer Systems Administrators	228	110401	Information Science/Studies	365	0

Bachelor's (continued)

DEMAND				SUPPLY		GAP
SOCCODE	SOCITLE	Annual Demand	CIPCODE	CITITLE	Annual Supply	
151071	Network and Computer Systems Administrators	4	110501	Computer Systems Analysis/Analyst	7	0
151071	Network and Computer Systems Administrators	0	110901	Computer Systems Networking and Telecommunications (NEW)	0	0
151071	Network and Computer Systems Administrators	0	111003	Computer and Information Systems Security (NEW)	0	0
151071	Network and Computer Systems Administrators	0	119999	Computer and Information Sciences and Support Services, Other	0	0
151081	Network Systems and Data Communications Analysts	441	110101	Computer and Information Sciences, General	834	0

Bachelor's (continued)

DEMAND				SUPPLY			GAP
SOCCODE	SOCTITLE	Annual Demand	CIPCODE	CIPTITLE	Annual Supply		
151081	Network Systems and Data Communications Analysts	4	110501	Computer Systems Analysis/Analyst	7	0	
151081	Network Systems and Data Communications Analysts	0	110901	Computer Systems Networking and Telecommunications (NEW)	0	0	
151081	Network Systems and Data Communications Analysts	0	111003	Computer and Information Systems Security (NEW)	0	0	
171011	Architects, Except Landscape and Naval	82	040201	Architecture (BArch, BA/BS, MArch, MA/MS, PhD)	162	0	
171011	Architects, Except Landscape and Naval	3	049999	Architecture and Related Services, Other	6	0	
171012	Landscape Architects	13	040601	Landscape Architecture (BS, BSLA, BLA, MSLA, MLA, PhD)	19	0	
172011	Aerospace Engineers	18	140201	Aerospace, Aeronautical and Astronautical Engineering	80	0	
172041	Chemical Engineers	16	140701	Chemical Engineering	110	0	

Bachelor's (continued)

SOC CODE	SOC TITLE	DEMAND		SUPPLY		GAP
		Annual Demand	CIP CODE	CIP TITLE	Annual Supply	
172051	Civil Engineers	156	140801	Civil Engineering, General	203	0
172051	Civil Engineers	13	140899	Civil Engineering, Other	17	0
172061	Computer Hardware Engineers	62	140901	Computer Engineering, General	221	0
172071	Electrical Engineers	139	141001	Electrical, Electronics and Communications Engineering	303	0
172072	Electronics Engineers, Except Computer	142	141001	Electrical, Electronics and Communications Engineering	303	0
172081	Environmental Engineers	107	141401	Environmental/Environmental Health Engineering	5	102
172111	Health and Safety Engineers, Except Mining Safety Engineers and Inspectors	15	141401	Environmental/Environmental Health Engineering	5	10
172131	Materials Engineers	7	141801	Materials Engineering	19	0
172141	Mechanical Engineers	118	141901	Mechanical Engineering	367	0

Bachelor's (continued)

DEMAND				SUPPLY		
SOCCODE	SOCTITLE	Annual Demand	CIPCODE	CIPTITLE	Annual Supply	
172199	Engineers, All Other	23	140101	Engineering, General	32	0
172199	Engineers, All Other	14	141101	Engineering Mechanics	20	0
172199	Engineers, All Other	4	141201	Engineering Physics	6	0
172199	Engineers, All Other	86	142701	Systems Engineering	120	0
191023	Zoologists and Wildlife Biologists	10	261301	Ecology	11	0
191031	Conservation Scientists	0	030101	Natural Resources/ Conservation, General	0	0
191031	Conservation Scientists	1	030201	Natural Resources Management and Policy	2	0
191031	Conservation Scientists	7	030299	Natural Resources Management and Policy, Other	16	0
191032	Foresters	0	030101	Natural Resources/ Conservation, General	0	0

Bachelor's (continued)

DEMAND				SUPPLY		
SOCCODE	SOCTITLE	Annual Demand	CIPCODE	CIPTITLE	Annual Supply	
191032	Foresters	1	030201	Natural Resources Management and Policy	2	0
191032	Foresters	5	030299	Natural Resources Management and Policy, Other	16	0
191099	Life Scientists, All Other	24	260101	Biology/Biological Sciences, General	1,536	0
191099	Life Scientists, All Other	0	261301	Ecology	11	0
191099	Life Scientists, All Other	0	269999	Biological and Biomedical Sciences, Other	12	0
192031	Chemists	57	400501	Chemistry, General	316	0
192099	Physical Scientists, All Other	24	409999	Physical Sciences, Other	20	4
211021	Child, Family, and School Social Workers	296	440701	Social Work	297	0

Bachelor's (continued)

DEMAND			SUPPLY			GAP
SOCCODE	SOCTITLE	Annual Demand	CIPCODE	CIPTITLE	Annual Supply	
211092	Probation Officers and Correctional Treatment Specialists	109	440701	Social Work	297	0
212021	Directors, Religious Activities and Education	13	390201	Bible/Biblical Studies	7	6
252021	Elementary School Teachers, Except Special Education	656	131202	Elementary Education and Teaching	45	611
252021	Elementary School Teachers, Except Special Education	715	131206	Teacher Education, Multiple Levels	49	666
252022	Middle School Teachers, Except Special and Vocational Education	1	131203	Junior High/Intermediate/Middle School Education and Teaching	1	0

Bachelor's (continued)

DEMAND			SUPPLY			GAP
SOCCODE	SOC TITLE	Annual Demand	CIPCODE	CIPTITLE	Annual Supply	
252022	Middle School Teachers, Except Special and Vocational Education	42	131302	Art Teacher Education	41	1
	Middle School Teachers, Except Special and Vocational Education	12	131305	English/Language Arts Teacher Education	12	0
252022	Middle School Teachers, Except Special and Vocational Education	2	131306	Foreign Language Teacher Education	2	0
	Middle School Teachers, Except Special and Vocational Education	71	131307	Health Teacher Education	69	2

Bachelor's (continued)

DEMAND			SUPPLY			GAP
SOCCODE	SOCTITLE	Annual Demand	CIPCODE	CIPTITLE	Annual Supply	
252022	Middle School Teachers, Except Special and Vocational Education	5	131308	Family and Consumer Sciences/Home Economics Teacher Education	5	0
252022	Middle School Teachers, Except Special and Vocational Education	6	131311	Mathematics Teacher Education	6	0
252022	Middle School Teachers, Except Special and Vocational Education	23	131312	Music Teacher Education	22	1
252022	Middle School Teachers, Except Special and Vocational Education	310	131314	Physical Education Teaching and Coaching	300	10

Bachelor's (continued)

DEMAND			SUPPLY			GAP
SOCICODE	SOCTITLE	Annual Demand	CIPCODE	CPTITLE	Annual Supply	
252022	Middle School Teachers, Except Special and Vocational Education	9	131317	Social Science Teacher Education	9	0
252022	Middle School Teachers, Except Special and Vocational Education	5	131318	Social Studies Teacher Education	5	0
252022	Middle School Teachers, Except Special and Vocational Education	18	131328	History Teacher Education	17	1
252022	Middle School Teachers, Except Special and Vocational Education	56	131399	Teacher Education and Professional Development, Specific Subject Areas, Other	54	2

Bachelor's (continued)

SOCODE	SOCTITLE	DEMAND		SUPPLY		GAP
		Annual Demand	CIPCODE	CIPTITLE	Annual Supply	
252031	Secondary School Teachers, Except Special and Vocational Education	2	131203	Junior High/Intermediate/ Middle School Education and Teaching	1	1
252031	Secondary School Teachers, Except Special and Vocational Education	103	131205	Secondary Education and Teaching	57	46
252031	Secondary School Teachers, Except Special and Vocational Education	88	131206	Teacher Education, Multiple Levels	49	39
252031	Secondary School Teachers, Except Special and Vocational Education	74	131302	Art Teacher Education	41	33

Bachelor's (continued)

DEMAND			SUPPLY			GAP
SOCCODE	SOCTITLE	Annual Demand	CIPCODE	CIPTITLE	Annual Supply	
252031	Secondary School Teachers, Except Special and Vocational Education	23	131303	Business Teacher Education	13	10
252031	Secondary School Teachers, Except Special and Vocational Education	22	131305	English/Language Arts Teacher Education	12	10
252031	Secondary School Teachers, Except Special and Vocational Education	4	131306	Foreign Language Teacher Education	2	2
252031	Secondary School Teachers, Except Special and Vocational Education	124	131307	Health Teacher Education	69	55

Bachelor's (continued)

DEMAND			SUPPLY			GAP
SOCCODE	SOCTITLE	Annual Demand	CIPCODE	CIPTITLE	Annual Supply	
252031	Secondary School Teachers, Except Special and Vocational Education	9	131308	Family and Consumer Sciences/Home Economics Teacher Education	5	4
252031	Secondary School Teachers, Except Special and Vocational Education	11	131311	Mathematics Teacher Education	6	5
252031	Secondary School Teachers, Except Special and Vocational Education	40	131312	Music Teacher Education	22	18
252031	Secondary School Teachers, Except Special and Vocational Education	541	131314	Physical Education Teaching and Coaching	300	241

Bachelor's (continued)

SOCICODE	SOCTITLE	DEMAND		SUPPLY		GAP
		Annual Demand	CIPCODE	CIPTITLE	Annual Supply	
252031	Secondary School Teachers, Except Special and Vocational Education	16	131317	Social Science Teacher Education	9	7
252031	Secondary School Teachers, Except Special and Vocational Education	9	131318	Social Studies Teacher Education	5	4
252031	Secondary School Teachers, Except Special and Vocational Education	5	131322	Biology Teacher Education	3	2
252031	Secondary School Teachers, Except Special and Vocational Education	2	131323	Chemistry Teacher Education	1	1

Bachelor's (continued)

SOCICODE	SOCTITLE	DEMAND		SUPPLY		GAP
		Annual Demand	CIPCODE	CIPTITLE	Annual Supply	
252031	Secondary School Teachers, Except Special and Vocational Education	0	131325	French Language Teacher Education	0	0
252031	Secondary School Teachers, Except Special and Vocational Education	31	131328	History Teacher Education	17	14
252031	Secondary School Teachers, Except Special and Vocational Education	97	131399	Teacher Education and Professional Development, Specific Subject Areas, Other	54	43
253011	Adult Literacy, Remedial Education, and GED Teachers and Instructors	42	131401	Teaching English as a Second or Foreign Language/ESL Language Instructor	3	39
259021	Farm and Home Management Advisors	2	190101	Family and Consumer Sciences/Human Sciences, General	41	0

Bachelor's (continued)

DEMAND			SUPPLY			GAP
SOCICODE	SOCTITLE	Annual Demand	CIPCODE	CPTITLE	Annual Supply	
259021	Farm and Home Management Advisors	0	190402	Consumer Economics	1	0
259021	Farm and Home Management Advisors	1	190499	Family and Consumer Economics and Related Services, Other	9	0
259021	Farm and Home Management Advisors	5	190601	Housing and Human Environments, General	95	0
259021	Farm and Home Management Advisors	2	190901	Apparel and Textiles, General	40	0
259021	Farm and Home Management Advisors	1	199999	Family and Consumer Sciences/Human Sciences, Other	9	0
271014	Multi-Media Artists and Animators	9	500708	Painting	31	0
271021	Commercial and Industrial Designers	4	500401	Design and Visual Communications, General	132	0

Bachelor's (continued)

SOCICODE	SOCTITLE	Annual Demand	SUPPLY			GAP
			CIPCODE	CPTITLE	Annual Supply	
259021	Farm and Home Management Advisors	0	190402	Consumer Economics	1	0
259021	Farm and Home Management Advisors	1	190499	Family and Consumer Economics and Related Services, Other	9	0
259021	Farm and Home Management Advisors	5	190601	Housing and Human Environments, General	95	0
259021	Farm and Home Management Advisors	2	190901	Apparel and Textiles, General	40	0
259021	Farm and Home Management Advisors	1	199999	Family and Consumer Sciences/Human Sciences, Other	9	0
271014	Multi-Media Artists and Animators	9	500708	Painting	31	0
271021	Commercial and Industrial Designers	4	500401	Design and Visual Communications, General	132	0

Bachelor's (continued)

DEMAND			SUPPLY			GAP
SOC CODE	SOCTITLE	Annual Demand	CIP CODE	CIP TITLE	Annual Supply	
271021	Commercial and Industrial Designers	1	500402	Commercial and Advertising Art	28	0
271021	Commercial and Industrial Designers	1	500404	Industrial Design	27	0
271024	Graphic Designers	14	500401	Design and Visual Communications, General	132	0
271024	Graphic Designers	24	500402	Commercial and Advertising Art	28	0
271024	Graphic Designers	23	500404	Industrial Design	27	0
271025	Interior Designers	40	500408	Interior Design	52	0
273031	Public Relations Specialists	247	090101	Communication Studies/ Speech Communication and Rhetoric	756	0
273031	Public Relations Specialists	4	090902	Public Relations/Image Management (NEW)	13	0
273041	Editors	46	090102	Mass Communication/Media Studies	146	0
273041	Editors	49	090401	Journalism	154	0

Bachelor's (continued)

DEMAND			SUPPLY			GAP
SOCCODE	SOCITLE	Annual Demand	CIPCODE	CPTITLE	Annual Supply	
273041	Editors	10	090402	Broadcast Journalism	30	0
273041	Editors	17	099999	Communication, Journalism, and Related Programs, Other	54	0
273041	Editors	4	230501	Creative Writing	12	0
273041	Editors	10	231101	Technical and Business Writing	30	0
273042	Technical Writers	112	231101	Technical and Business Writing	30	82
273043	Writers and Authors	41	090101	Communication Studies/ Speech Communication and Rhetoric	756	0
273043	Writers and Authors	8	090102	Mass Communication/Media Studies	146	0
273043	Writers and Authors	8	090401	Journalism	154	0
273043	Writers and Authors	2	090402	Broadcast Journalism	30	0
273043	Writers and Authors	3	099999	Communication, Journalism, and Related Programs, Other	54	0

Bachelor's (continued)

DEMAND			SUPPLY			GAP
SOCCODE	SOCTITLE	Annual Demand	CIPCODE	CITITLE	Annual Supply	
273043	Writers and Authors	1	230501	Creative Writing	12	0
273043	Writers and Authors	2	231101	Technical and Business Writing	30	0
274032	Film and Video Editors	12	090701	Radio and Television	7	5
291031	Dietitians and Nutritionists	25	190501	Foods, Nutrition, and Wellness Studies, General	162	0
291031	Dietitians and Nutritionists	5	190505	Foodservice Systems Administration/Management	33	0
291071	Physician Assistants	47	510912	Physician Assistant	24	23
291122	Occupational Therapists	99	512306	Occupational Therapy/ Therapist	14	85
291125	Recreational Therapists	9	512309	Therapeutic Recreation/ Recreational Therapy	24	0
292011	Medical and Clinical Laboratory Technologists	170	511005	Clinical Laboratory Science/ Medical Technology/ Technologist	50	120
299091	Athletic Trainers	18	510913	Athletic Training/Trainer	40	0

Bachelor's (continued)

DEMAND			SUPPLY			GAP
SOCCODE	SOCTITLE	Annual Demand	CIPCODE	CIPTITLE	Annual Supply	
399032	Recreation Workers	110	310101	Parks, Recreation and Leisure Studies	144	0
399032	Recreation Workers	16	310301	Parks, Recreation and Leisure Facilities Management	21	0
399032	Recreation Workers	47	310504	Sport and Fitness Administration/Management	61	0
399032	Recreation Workers	5	310599	Health and Physical Education/Fitness, Other	7	0
399032	Recreation Workers	28	319999	Parks, Recreation, Leisure and Fitness Studies, Other	37	0
532011	Airline Pilots, Copilots, and Flight Engineers	166	490102	Airline/Commercial/Professional Pilot and Flight Crew	2	164

Associate's

DEMAND			SUPPLY			GAP
SOC CODE	SOCTITLE	Annual Demand	CIP CODE	CIP TITLE	Annual Supply	
119061	Funeral Directors	11	120301	Funeral Service and Mortuary Science, General	22	0
151041	Computer Support Specialists	1,029	110301	Data Processing and Data Processing Technology/ Technician	17	1,012
151099	Computer Specialists, All Other	91	110101	Computer and Information Sciences, General	1,041	0
151099	Computer Specialists, All Other	1	110301	Data Processing and Data Processing Technology/ Technician	17	0
151099	Computer Specialists, All Other	0	110401	Information Science/Studies	2	0
151099	Computer Specialists, All Other	2	119999	Computer and Information Sciences and Support Services, Other	20	0
173022	Civil Engineering Technicians	100	150201	Civil Engineering Technology/ Technician	14	86

Associate's (continued)

DEMAND			SUPPLY			GAP
SOCCODE	SOCTITLE	Annual Demand	CIPCODE	CIPTITLE	Annual Supply	
173023	Electrical and Electronic Engineering Technicians	16	150303	Electrical, Electronic and Communications Engineering Technology/Technician	92	0
173023	Electrical and Electronic Engineering Technicians	37	150399	Electrical and Electronic Engineering Technologies/ Technicians, Other	221	0
173023	Electrical and Electronic Engineering Technicians	1	151201	Computer Engineering Technology/Technician	8	0
173023	Electrical and Electronic Engineering Technicians	121	151202	Computer Technology/ Computer Systems Technology (NEW)	713	0
173026	Industrial Engineering Technicians	18	150699	Industrial Production Technologies/Technicians, Other	41	0
173027	Mechanical Engineering Technicians	28	150899	Mechanical Engineering Related Technologies/ Technicians, Other	106	0

Associate's (continued)

DEMAND				SUPPLY		
SOCCODE	SOCTITLE	Annual Demand	CIPCODE	CIPTITLE	Annual Supply	
194093	Forest and Conservation Technicians	8	030511	Forest Technology/Technician (NEW)	3	5
232011	Paralegals and Legal Assistants	247	220302	Legal Assistant/Paralegal	70	177
274012	Broadcast Technicians	30	100202	Radio and Television Broadcasting Technology/Technician	7	23
291111	Registered Nurses	2,629	511601	Nursing - Registered Nurse Training (RN, ASN, BSN, MSN)	1,007	1,622
291124	Radiation Therapists	10	510907	Medical Radiologic Technology/Science - Radiation Therapist	107	0
291126	Respiratory Therapists	118	510908	Respiratory Care Therapy/Therapist	88	20
292012	Medical and Clinical Laboratory Technicians	145	511004	Clinical/Medical Laboratory Technician	45	100
292021	Dental Hygienists	231	510602	Dental Hygiene/Hygienist	55	176

Associate's (continued)

DEMAND			SUPPLY			GAP
SOCCODE	SOCTITLE	Annual Demand	CIPCODE	CIPTITLE	Annual Supply	
292034	Radiologic Technologists and Technicians	226	510907	Medical Radiologic Technology/Science - Radiation Therapist	107	119
292071	Medical Records and Health Information Technicians	225	510707	Health Information/Medical Records Technology/ Technician	11	114
312011	Occupational Therapist Assistants	34	510803	Occupational Therapist Assistant	9	25
312021	Physical Therapist Assistants	90	510806	Physical Therapist Assistant	10	80
119061	Funeral Directors	11	120301	Funeral Service and Mortuary Science, General	22	0

Postsecondary Vocational

DEMAND				SUPPLY		
SOCCODE	SOCTITLE	Annual Demand	CIPCODE	CIPTITLE	Annual Supply	
173013	Mechanical Drafters	34	151306	Mechanical Drafting and Mechanical Drafting CAD/CADD	7	27
292055	Surgical Technologists	0	510811	Pathology/Pathologist Assistant (NEW)	0	0
292055	Surgical Technologists	52	510909	Surgical Technology/Technologist	29	23
292061	Licensed Practical and Licensed Vocational Nurses	274	511613	Licensed Practical /Vocational Nurse Training (LPN, LVN, Cert, Dipl, AAS)	122	152
292061	Licensed Practical and Licensed Vocational Nurses	569	511601	Nursing - Registered Nurse Training (RN, ASN, BSN, MSN)	444	125
319011	Massage Therapists	13	513501	Massage Therapy/Therapeutic Massage	26	0
319011	Massage Therapists	0	513502	Asian Bodywork Therapy (NEW)	0	0
319011	Massage Therapists	0	513503	Somatic Bodywork (NEW)	0	0

Postsecondary Vocational (continued)

SOCICODE	SOCITLE	DEMAND		SUPPLY		GAP
		CIPCODE	Annual Demand	CIPTITLE	Annual Supply	
319011	Massage Therapists	0	513599	Somatic Bodywork and Related Therapeutic Services, Other (NEW)	0	0
319094	Medical Transcriptionists	128	510708	Medical Transcription/Transcriptionist	34	94
395012	Hairdressers, Hairstylists, and Cosmetologists	0	120404	Electrolysis/Electrolysis and Electrolysis Technician	0	0
395012	Hairdressers, Hairstylists, and Cosmetologists	0	120406	Make-Up Artist/Specialist	0	0
395012	Hairdressers, Hairstylists, and Cosmetologists	0	120407	Hair Styling/Stylist and Hair Design (NEW)	0	0
395012	Hairdressers, Hairstylists, and Cosmetologists	0	120411	Permanent Cosmetics/ Makeup and Tattooing (NEW)	0	0
395012	Hairdressers, Hairstylists, and Cosmetologists	0	120412	Salon/Beauty Salon Management/Manager (NEW)	0	0
395012	Hairdressers, Hairstylists, and Cosmetologists	0	120413	Cosmetology, Barber/Styling, and Nail Instructor (NEW)	0	0

Postsecondary Vocational (continued)

DEMAND			SUPPLY			GAP
SOCICODE	SOCTITLE	Annual Demand	CIPCODE	CITITLE	Annual Supply	
395012	Hairdressers, Hairstylists, and Cosmetologists	0	120499	Cosmetology and Related Personal Grooming Arts, Other	0	0
395092	Manicurists and Pedicurists	36	120401	Cosmetology/Cosmetologist, General	58	0
395092	Manicurists and Pedicurists	0	120410	Nail Technician/Specialist and Manicurist (NEW)	0	0
395094	Skin Care Specialists	16	120401	Cosmetology/Cosmetologist, General	58	0
395094	Skin Care Specialists	0	120408	Facial Treatment Specialist/Facialist (NEW)	0	0
436012	Legal Secretaries	169	220301	Legal Administrative Assistant/Secretary	18	151
436013	Medical Secretaries	0	510710	Medical Office Assistant/ Specialist (NEW)	0	0
436013	Medical Secretaries	209	510714	Medical Insurance Specialist/ Medical Biller (NEW)	114	95
436013	Medical Secretaries	17	510716	Medical Administrative/ Executive Assistant and Medical Secretary	9	8

Postsecondary Vocational (continued)

SOCODE	SOCITLE	DEMAND		SUPPLY		GAP
		Annual Demand	CIPCODE	CIPTITLE	Annual Supply	
492011	Computer, Automated Teller, and Office Machine Repairers	0	470102	Business Machine Repair	0	0
492011	Computer, Automated Teller, and Office Machine Repairers	89	470104	Computer Installation and Repair Technology/Technician	11	78
492091	Avionics Technicians	6	470607	Airframe Mechanics and Aircraft Maintenance Technology/Technician	69	0
492091	Avionics Technicians	0	470609	Avionics Maintenance Technology/Technician	0	0
492092	Electric Motor, Power Tool, and Related Repairers	19	470101	Electrical/Electronics Equipment Installation and Repair, General	48	0

Postsecondary Vocational (continued)

DEMAND			SUPPLY			GAP
SOCCODE	SOCTITLE	Annual Demand	CIPCODE	CITITLE	Annual Supply	
492093	Electrical and Electronics Installers and Repairers, Transportation Equipment	4	470604	Automobile/Automotive Mechanics Technology/Technician	79	0
492094	Electrical and Electronics Repairers, Commercial and Industrial Equipment	62	470104	Computer Installation and Repair Technology/Technician	11	51
492094	Electrical and Electronics Repairers, Commercial and Industrial Equipment	0	470105	Industrial Electronics Technology/Technician	0	0
492096	Electronic Equipment Installers and Repairers, Motor Vehicles	4	470604	Automobile/Automotive Mechanics Technology/Technician	79	0

Postsecondary Vocational (continued)

DEMAND		SUPPLY			GAP
SOCCODE	SOCTITLE	Annual Demand	CIPCODE	CIPTITLE	Annual Supply
493011	Aircraft Mechanics and Service Technicians	0	010205	Agricultural Mechanics and Equipment/Machine Technology (NEW)	0
493011	Aircraft Mechanics and Service Technicians	135	470607	Airframe Mechanics and Aircraft Maintenance Technology/Technician	69
493011	Aircraft Mechanics and Service Technicians	0	470608	Aircraft Powerplant Technology/Technician	0
493023	Automotive Service Technicians and Mechanics	0	150803	Automotive Engineering Technology/Technician	0
493023	Automotive Service Technicians and Mechanics	866	470604	Automobile/Automotive Mechanics Technology/Technician	79
					787

Postsecondary Vocational (continued)

DEMAND			SUPPLY			GAP
SOCCODE	SOCTITLE	Annual Demand	CIPCODE	CIPTITLE	Annual Supply	
493023	Automotive Service Technicians and Mechanics	0	470612	Vehicle Emissions Inspection and Maintenance Technology/Technician (NEW)	0	0
493023	Automotive Service Technicians and Mechanics	0	470613	Medium/Heavy Vehicle and Truck Technology/Technician (NEW)	0	0
493023	Automotive Service Technicians and Mechanics	0	470614	Alternative Fuel Vehicle Technology/Technician (NEW)	0	0
493031	Bus and Truck Mechanics and Diesel Engine Specialists	204	470605	Diesel Mechanics Technology/Technician	37	167
493031	Bus and Truck Mechanics and Diesel Engine Specialists	0	470613	Medium/Heavy Vehicle and Truck Technology/Technician (NEW)	0	0



Ann Lang
Virginia Employment Commission

(804) 786-3177

<http://www.vaworkforcecouncil.com>

Education

Job Growth

2/06 - 300